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ABSTRACT

In addition to the presidential address and the general session address ("Does Sport and Physical Activity Have a Future in Education?"), the proceedings contain speeches on the following topics: (1) international relations, (2) intercollegiate athletics, (3) the history of sport, (4) teacher education, (5) basic instruction, (6) intramural athletics, and (7) research. Some of the material presented in the research section are papers on the student as sport consumer, physique and performance, and the cognitive domain and the teaching of physical education. The president's report, financial reports, minutes from the last meeting, and reports from the standing committees, the president's committees, and joint committees are then presented. The NCPEAM constitution and by-laws and NCPEAM policies are included in these proceedings as well as lists of NCPEAM members, officers, and committee members. (PB)

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Annual Meeting
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New Orleans, Louisiana

National College Physical Education Association for Men

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Convention City	Pittsburgh, Pennsylvania
Convention Hotel	Pittsburgh Hilton
Convention Dates	January 7-10, 1973
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PRESIDENTIAL ADDRESS

Where Hast Thou Been–Whither Goest Thou, NCPEAM

DEANE E. RICHARDSON
Arizona State University

Happy birthday, NCPEAM! In fact, 75 birthdays have greeted the Association since its birth on November 7, 1897, in the Law Department building of New York University. A short discussion of the history of the Association at its Diamond Jubilee is certainly in order. William G. Anderson, of Yale, became concerned because strong disagreement existed among college physical educators relating to the definition, purposes, and systems of physical education. He invited professional leaders to meet and discuss the possibility of forming an organization where differences could be aired. Eight prominent college physical educators accepted Dr. Anderson's invitation. They were Jay W. Seaver and Professor Sharp from Yale, Dudley A. Sargent, Harvard; Christopher P. Linhart, Ohio State; Watson L. Savage, Columbia; George Goldie, Princeton; Frederick W. Marvel, Wesleyan, and Frank H. Conn, New York University. Of course, you, as college professors know their first action—three committees were appointed!

The November, 1897 meeting was called for exploratory and organizational purposes. Immediately after the meeting, invitations were sent to other college physical educators inviting all to attend what became the first conference of the Society of College Gymnasium Directors, on December 31, 1897, at the Knickerbocker Athletic Club in New York. The organization almost died right then, because some of the older influential men as Edward Hitchcock of Amherst, and Sargent were against forming a new organization which might compete with the young, struggling American Association for the Advancement of Physical Education, the forerunner of the AAHPER. Those desiring to form a new society were led by Christopher Linhart who claimed the AAAPE did very little to help solve problems shared by the men then meeting at the Knickerbocker Club. A compromise was reached, and the new society was formed but membership in the AAAPE was required.[1]

Starting at the 1898 conference, members presented papers and debated the issues and problems they faced. The name of the organization was changed in 1908 to the Society of Directors of Physical Education in Colleges. Growth mounted slowly because there was a deliberate effort to restrict membership. There were 30 members at the turn of the century and 60 members in 1920. In 1932, the name was again changed to the College Physical Education Association and the constitution was revised. In addition to doubling the dues, from one dollar to two dollars, a major change in philosophy was implemented in that membership was opened and encouraged. The membership increased dramatically to the present figure of over 1200. In 1963, the title of the organization was again changed to the present one.

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[1] Henry Dunbar, Jr., A Brief History of the College Physical Education Association. Teachers College, Columbia University, 1950, p. 28.

For several years, previous to 1934, the Association had met at the same city or the same hotel with the American Student Health Association, the National Collegiate Athletic Association, and the American Football Coaches Association. In 1934, joint meetings were held, but because of fragmentation and disorganization, the plan lasted only two years. Meetings were held in the east from 1897 until 1913. In 1914, a precedent was set by meeting way out west in Chicago. This was the year James Naismith, the founder of basketball, was President. In 1923, the first meeting in the south was held in Atlanta. It wasn't until 1957 that the Association met west of St. Louis, in Santa Monica, California. In 1956, the Western College Men's Physical Education Society was formed because western physical educators believed the NCPEAM's annual meeting in the east was discriminatory. The WCMPES is now considered the western arm of NCPEAM and meets with the Association when the conference rotation dictates a meeting in the western 13 states. This is the third meeting in New Orleans with previous conventions held in 1928 and 1937.

Why has NCPEAM persevered and prospered for three quarters of a century? The annual PROCEEDINGS present the record of accomplishment. Background material for this address came from reading and analyzing as many of the president's addresses as were available. The assumption was the presidents' addresses reflected the concerns of the members. Reading these addresses was indeed a humbling experience because the past presidents' names read as an all-time, all-star physical education team.

In 1935, C. L. Brewer, from the University of Missouri, stated that one reason for the Association's success was the fact that it had been able to hold its older members. According to Brewer, three men were still active after 30 years of membership, Amos Alonzo Stagg, Thomas A. Storey, and Clark Hetherington. There were a score of members active after 25 years of membership, and four charter members, including William G. Anderson and R. Tait McKenzie, had been active members for almost 40 years. Dunbar reported that Joseph E. Raycroft of Princeton became a member in 1902. He retired in 1940 and was an inactive member until 1955.

The Association has long been bold in its thinking. Perhaps the bravest proposal was that of President George Little of Rutgers, who in 1933 proposed in the president's address, that the Association seek the cooperation of the American Physical Education Association (now the AAHPER) and the National Collegiate Athletic Association to make a formal request to college presidents for seeking the backing of the President of the United States to support required physical education as federal policy. Just after World War I, the Fess-Copper bill was introduced in Congress appropriating matching federal funds with state appropriations for physical education. The bill did not pass.

Continued longevity of the Association is also due to the fact that solutions to current problems have been advanced by its members. The annual meeting has been the scene of vigorous debate concerning the directions physical education should take. Early debate centered on the question as to whether emphasis in college physical education should be on formal gymnastics and discipline or on the educational value of sport. Which of the current "old timers" can forget the spirited debates between C. H. McCloy and Delbert Oberteuffer, each espousing a different emphasis for physical education?

Many of the presidents have spoken of the relationship between physical education and intercollegiate athletics. As early as 1908, a survey found that many students were allowed to elect athletics for their course in physical training. In 1910, President Amos Alonzo Stagg took the position, opposed by the proponents of gymnastics, that all physical activities, including intercollegiate athletics, should be under the control of the physical education department. In 1913, criticism was expressed at the meeting for universities building large and expensive structures for spectators and paying large salaries to athletic coaches. Said Sargent, "No man hired by the trustees to teach athletics should be put in the position where he suffers from the varying successes of the teams; rather he should be protected."[2]

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[2] Dunbar, op. cit., p. 61.

Intercollegiate athletics continued to grow after World War I and with it came continued concern from NCPEAM. The trend toward professionalism in intercollegiate athletics has continued to cause great concern.

Many presidents have spoken of problems of the times. For example: Edward Fauver, 1919, definition of purposes. This issue has never been totally resolved.

Oliver Cornwell, 1941, physical fitness. The sad physical state of young men inducted during World War II caused national and professional concern.

Carl Schott, 1943, education of returning veterans. This was important for the post World War GI college boom.

Delbert Oberteuffer, 1946, blanket physical education credit to veterans for military service. The universal problem disturbed college physical educators who claimed the objectives of physical education and military service were not synonymous, therefore, one could not substitute one for the other.

Carl Nordly, 1948, standards for professional preparation. The great numbers of post World War II undergraduate major students and the lack of scientific background in many programs caused great concern in the profession.

Arthur Daniels, 1957, the role of sport in society. As physical education expanded its horizons, the need for research was evident.

The relevance of NCPEAM for solving professional problems has been a topic of several presidents. President Harold Woods of Wesleyan University, speaking in 1938, stated the Association could be a positive and continuing force, shaping the future of physical education in the United States. E. B. Smith, of the University of Georgia, in 1957, warned that the continued life of the Association was not automatic, that signposts of decay must be spotted, and members must have a willingness to shift activities, and even objectives to meet changing needs and interests of the profession.

Evidence is abundant that NCPEAM has been a strong force in shaping physical education in higher education in the United States. The insistence by members that NCPEAM must assume this leadership, is reason for its continued health.

In 1969, Charles Kovacic described how life will be lived by the year 2000 in the computer age. Previous to that, in 1966, President Rich Donnelly had painted verbal pictures concerning the post industrial age. One could get very excited when contemplating J. Robert Oppenheimer's statement to the effect that when the future becomes history, it will be clear how little of it was foreseen. Computer cooking, electronic check writing, and such CATV activities as grocery ordering, medical diagnosing, and learning by TV at home, are either here or will be soon. Probably the most disturbing prediction is that only one out of ten persons will need to be employed, the rest being paid to be idle. The role of leisure in the computer age has been discussed widely.

CHANGES IN HIGHER EDUCATION

However, the purpose today is not to speak of the great future, but to take a look at the realities of higher education largely brought on by inflation and changing values. Yes, the golden age of the sixties is gone, and the realities of the seventies must be faced. The situation changes so fast that predictions need to be revised yearly. The safest prediction would be to label the seventies as the decade of conflict. Some of the changing situations in higher education taking place today can be described.

1) Predicting enrollment trends for the seventies is most hazardous. The Carnegie Commission on Higher Education in its 1971 report titled, "New Students and New Places," stated that conflicting trends make enrollment estimation much more precarious as compared with forecasting enrollment for the sixties. There was an overall drop in freshmen enrollment in four year institutions in the fall of 1971, as youth failed to see the relevance of a college education. The Commission predicts there will be 12,500,000 to 13,500,000 students in higher education in 1980 as com-

pared with 8,500,000 in 1970;[3] however, the pattern of enrollment will change.

2) Community colleges will increase in number, prestige and financing at the expense of four year institutions. The skilled technician, who makes more money than many graduates from four year institutions, will be trained in the community colleges. The myth of the sanctity of a college education will be exploded as the national, state and local emphasis on job training gathers momentum.
3) Higher education will be made more available to those in the large cities. This will be accomplished by organizing new universities or branches, or by enlarging existing institutions. The power may well pass from universities not located in population centers to the branches located in the large cities.
4) Most private and religious colleges and universities will not be able to continue unless supported by federal and state financing. Many of the smaller, weaker institutions will cease to exist as autonomous institutions. The stronger colleges will survive; however, the composition of the student bodies may change radically if private colleges are made more accessible to students with limited financial funds.
5) The federal government will increase its financing and control of all higher education institutions. Control comes indirectly with the necessity for universities meeting stated standards determined by national programs.
6) There will be a determined effort made to reduce the length of time it takes students to complete both graduate and undergraduate degrees.
7) Open admissions or differing admission standards will increase in about the same proportion as the pain it will cause some professors. Attack on the relevance of high school grades and entrance test scores, particularly for minority groups, will cause faculties and administrators to react to public demand for equal education opportunity.
8) Minority groups will receive continued attention and will succeed in bettering their situations. Blacks have led the fight for equality and the Women's Lib movement has been increasingly successful. Other groups, not as well organized, as the Mexican-Americans, and the Indians, will place a greater percentage of their group in higher education.
9) A glut on the job market will continue to exist at all degree levels and will include physical education for men. This situation has been with the profession at the baccalaureate level since 1930 except for a short period of time after World War II. The lack of jobs will cause a decline in the number of physical education major students.
10) A struggle for power is taking place with more influence being wielded from agencies outside the university. Legislatures as well as the courts will exert a greater influence. For example, non-tenured professors, released from their positions, are appealing to the courts for redress. The struggle for power within the university will be sharpened by collective bargaining. The American Association of University Professors, (AAUP) seems to lack the dynamic national leadership needed for aggressive campaigns and many professors are reluctant to align themselves with the big labor unions. There is more than an even chance that the National Education Association (NEA), and the American Federation of Teachers (AFT) will soon join forces as the aggressive NEA, fighting for its life, is winning its struggle with the larger AFT. The results either way will be bargaining in the colleges and universities, not only for salary, but also regarding tenure, retirement, the academic calendar, work load and travel funds. The power of the professor will be diminished, and will be assumed by the small group negotiating with the university governing authorities.

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[3] "New Students, New Places: Major Themes of the Carnegie Report," **The Chronicle of Higher Education**, (October 12, 1971) p. 1.

11) There will be successful attacks on tenure as short term contracts for three to five years will be substituted. This, in turn, will bring increased uncertainty, unrest and conflict but may result in better instruction.

12) Accountability for programs and results will be demanded. Vague objectives will not be tolerated by students, administration, or by the legislators. Performance objectives with specific built-in evaluation will govern course and program content. Cost-effectiveness of operations will be closely examined. Curriculum reform will need to be tested as to its effect on the budget.

13) Teaching loads will be from 10-15 credit hours, and classes will be larger. The large research oriented universities, which increased research output in the sixties while decreasing teaching loads, will return to the standard generally held by the comprehensive universities. With an increase in the teaching function, faculty work loads will be altered. Study after study has indicated faculty work about 57 hours a week. Since this number of hours cannot very well increase, there will be a reallocation of assignments.

In summary, change is here and will continue. Pain for professors and administrators is present and will increase. The life style of the professor will change and many of his current values will be drowned in the swell of change.

CHANGES IN PHYSICAL EDUCATION

What meaning do these changes in higher education have for physical educators? A shortage of money will be felt in the seventies. Travel budgets, abundant in the sixties, have been cut drastically or have been eliminated in several states. The financial pinch is already present as indicated by the absence of many faithful members at this meeting.

Operating budgets will be cut in many institutions; therefore, economy moves or ways to cut expenses must be planned. For example, if separate men's and women's physical education and intramural departments exist, there is duplication of administrative costs and probably overlap of programs. History, pride, and "squatters rights" will be eliminated voluntarily, or fusion will be accomplished by higher authority.

Each physical education department should organize a cadre of faculty interested in innovation as described by Toffler, in FUTURE SHOCK. Are duplicate courses available in other departments? Examples might be administrative theory, statistics, leisure, methodology. Which programs should be emphasized? Should existing weak programs be curtailed or eliminated if other institutions within the state are stronger in a particular area? Can joining forces with nearby institutions and pooling resources benefit all? What unique function can physical education provide the university, or the community?

PROFESSIONAL PREPARATION

Do the goals for professional preparation need to be changed? For years far more male physical education teachers have been graduated than were teaching positions available. If challenged, how could the large number of major students be defended? Will the numbers game played since World War II for requesting additional funds and personnel be a valid criterion in the seventies? Will the legislatures or Boards of Regents request a cost analysis of programs? Will duplication of professional physical education programs in all colleges and universities in each state be permitted? The great need in physical education is for elementary school specialists and for minor programs in athletic training, coaching and elementary classroom teaching. Shall students be prepared for both elementary and secondary teaching?

Employing the principles of flexibility and diversification, successfully used by industry might provide one answer. The profession has long been wedded to preparing teachers only, when, in fact, all sorts of community agencies need the expertise of physical educators. There is need for sports and activity directors for such agencies as boys' clubs, recreation departments, pre-school centers, retirement centers, and industry. A liberal arts degree, divorced from qualifying students for a teaching credential, is a possibility. Could there be prepared, through a multidisciplinary approach, a sports statistician, a newspaper sports writer, a TV or radio sports caster, a facilities specialist, a sports specialist such as a golf pro, a ski instructor, or a sports administrator, prepared to manage a specialized sport facility?

There are indications that public school students want physical education activities different from the ones fostered for almost a half century. A recent Associated Press release consisting of a whole page of pictures and description in the **Arizona Republic** described an innovative high school physical education program in Berkeley, California. One physical education teacher in the program was quoted as saying that "physical education has become the most fascist of all departments in most high schools. Physical education teachers seem to feel there's one absolute standard for physical fitness for everyone."[1] Are students being prepared for change or are all students being prepared with the same skills and attitudes?

Graduate offerings need to be scrutinized closely. How much longer will it be possible to defend a graduate course of four to six students taught by a professor near the top of the salary scale? The "individual attention" answer may not satisfy a state legislature when the income from the class pays but a fraction of the percentage of the professor's salary devoted to that class.

BASIC INSTRUCTION PROGRAM

The future of the basic instruction program is most exciting and controversial. In many institutions, whose faculties genuinely wish to emphasize liberal education, the activity program may hold more promise than does professional preparation. In 1930, President Ralph LaPorte asked if physical education should remain a requirement in college. In the past few years the number of institutions dropping the requirement has increased dramatically. Despite the anguished outcry from many, this trend will continue. It is clear that students want what Ben Miller describes as a student-oriented program. One problem to be faced is that activities desired by students as judo, karate, mountain climbing, curling, yoga, skiing, surfing, sailing, orienteering, hunting, and fishing are not within the competence of most physical education faculties. Of course, the lifetime sports will continue to be popular. There is ample evidence that a basic instruction program well taught, and offering activities students desire, will be supported by both the students and the administration. Departments may wish to place greater financial resources in this area and cut back in undergraduate professional preparation.

However, even such an enlightened program as that just described may meet with difficult days. Former President Louis Alley foresaw the day when no skill type classes will be offered for credit in the university. There is already a blurring of responsibility in this area. Intramural sports clubs are now offering instruction identical to that offered for credit in the basic instruction program. In fact, the same instructor may be employed to teach both the class for credit and the club.

INTRAMURALS-EXTRAMURALS

There is no doubt the intramural sports and club program, long the ugly duckling, is becoming a swan. It is almost as though the switch in popularity from intercollegiate athletics to intramural sports were written by Alfred Hitchcock. Students want to participate and intramural directors have been flexible enough to broaden their programs to include the recreational non-competitive activities, club sports, and coeducational physical recreational programs. Problems will continue to exist such as the source of funding, and the selection of the administrative "home" for campus recreation and intramurals. Separate programs still exist for men and women, overlapping functions exist between intramurals and the student unions, and friction remains with both the Dean of Students' office and some areas, with the Department of Intercollegiate Athletics. Intramurals, including campus recreation, extramurals and club programs, must seek solid funding from central administration to carry out its functions. Despite the problems, the future is bright in some areas.

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[1] Lynn Sherr, "Innovative Schools Have No Rules." **The Arizona Republic**, July 19, 1971, p. 39.

INTERCOLLEGIATE ATHLETICS

A whole paper could be written concerning the future of intercollegiate athletics. The trends are clear. Many athletic departments are bankrupt, most operate at a deficit. This situation exists because of rising costs of travel, recruiting, salaries, and promotional expenses added to the revolt of college students against automatically assigning student fees to support intercollegiate athletics. How long this situation can continue will depend upon how long those who make up the deficit are willing to foot the bill. When the orders are given to cut expenditures, the first activities to go will be the non-revenue sports. Those sports abandoned by the department of intercollegiate athletics will not disappear, they will be absorbed by expanding sports clubs programs directed by intramural departments. There is, however, a small cadre of institutions which will be able to postpone the decline of the intercollegiate athletic program because of their favorable financial circumstance of location, population, or subsidization by a state legislature willing to pay the salaries of athletic department personnel. Witness the fact that practically each fall the same institutions are rated as the sacred top ten or fifteen. The situation is one in which the wealthy will become more wealthy and others will face extinction.

This pattern will be repeated in the blossoming community colleges which have placed the god of a national championship ahead of student-oriented sports programs. Again, lack of sufficient income from the gate, and the unwillingness of students to financially support the program, rather than the willingness or the ability of the profession to police itself, will cause the decline.

Colleges offering an intercollegiate sports program geared to the objectives of education, and those offering programs in which the local students can compete, will continue to exist on fairly local levels. Many liberal arts colleges have offered such programs for years. In 1938, President Wood declared the small colleges would need to lead the way in preserving the educational objectives in intercollegiate athletics.

It can be predicted that, despite recent gains and despite the lib movement, there will be temporary increase in the funding of finances for the Women's Intercollegiate Program; however, in the long run, this program, too, will suffer the fate of Men's Athletics. The saving factor in the women's intercollegiate program is the fact that women coaches are, for the most part, coaching as an added duty, or at best receive an insignificant work load credit for coaching. In summary, the expansion started 10 years too late.

NCPEAM IN THE 1970'S

The last topic deals with the role of NCPEAM for the seventies. The decisions members make in the next few years may well determine whether or not NCPEAM celebrates its centennial. What generalizations can be drawn from the academic scene?

The money shortage cannot be ignored. Rather than attending three or four conferences a year, NCPEAM members will need to make choices. The key question is inescapable. What is unique concerning NCPEAM which will lead members to choose this conference over others? Are there professional experiences which cannot be duplicated by the national or district conventions of the AAHPER? Just as our founders discussed the relationship of NCPEAM to the AAHPER, so must we. Particular attention needs to be given to the newly created AAHPER College Physical Education Commission. What will be its role in higher education? Will there be duplication of effort? Will the AAHPER be sufficient to accomplish all that NCPEAM can and should do?

Should NCPEAM join forces with the National Association of Physical Education for College Women (NAPECW)? If this were to happen, how would the new organization differ from the AAHPER? Is the small number attending the NCPEAM Conference one of the strengths of the annual conference? If small numbers are an advantage, would this be lost in joining forces with NAPECW? On the other hand, if physical education is to change as it must, change will need to be accomplished jointly with the women. This question must be faced by this Association and by NAPECW.

Should regional organizations similar to the Western College Men's Physical Education Society (WCMPES) be formed? Studies indicate very few NCPEAM members attend the national conference when the meeting is scheduled on the opposite coast. Will tight money make regional organizations more attractive, or will additional organizations compound the already complicated conference situation? Should regional organizations be open to college women faculty?

Of prime importance to members and to the profession is the continuation of the PROCEEDINGS as one of the quality resources in the field. The PROCEEDINGS have served the profession well the past 75 years and microfilm copies should be available in university libraries across the land. The quality of the programs at the annual conference which are recorded in the PROCEEDINGS are of the utmost importance.

At this meeting, history was made by creating a structure flexible enough to meet the educational challenge of the time. There is now provision for meeting the interests of all groups, for scholarly presentations, for give and take debate, and for informal, intimate in-depth discussion. This latter format has but recently been employed by the Association and its potential has not really been tapped. There must be scheduled time for even two or three to plan joint or replicated research projects. Think of the impact on the profession if a dozen members planned an identical research project to be administered across the country! There are exciting studies now being conducted in the areas of sports psychology, sports sociology and history of sport. There must be time for both sharing of results and planning next steps by those with interest in areas or sub-areas.

Regardless of the structure, NCPEAM will need to provide a challenge for all. Dunbar spoke of the problems faced by a large organization. His objections can be met through flexibility with emphasis on participation. The older members must continue to find a challenge, the young members must have an opportunity to bring fresh ideas into the arena of debate. A spirit of friendliness must prevail as indicated by the motto recently printed in the **Newsletter**, "Let's agree to disagree agreeably." Indeed we must develop real and lasting professional respect and personal affection for one another, expressing concern and understanding for each other's welfare, if the Association is to be more than a collection of professional individuals.

So happy birthday, NCPEAM. May your distinguished past be preserved to serve the profession as the Association looks to its centennial.

RECORD OF NCPEAM CONVENTIONS

YEAR	PLACE	PRESIDENT	VICE PRESIDENT OR PRES. ELECT.	SECRETARY TREASURER
1897	New York	Edward Hitchcock	None	Watson L. Savage
1898	New York	Jay W. Seaver	C. P. Linhart	Watson L. Savage
1899	New Haven	Dudley A. Sargent	William G. Anderson	Watson L. Savage
1900	New York	William G. Anderson	R. Tait McKenzie	Watson L. Savage
1901	New York	R. Tait McKenzie	C. W. Miller	Watson L. Savage
1902	New York	Paul C. Phillips	Edw. Hitchcock, Jr. 1st F. E. Parker, 2nd	James A. Babbitt
1903	Princeton	Watson L. Savage	Jay W. Seaver, 1st W. A. Lambeth, 2nd	James A. Babbitt
1904	New York	R. Tait McKenzie	G. L. Meylan, 1st P. C. Phillips, 2nd	James A. Babbitt
1905	New York	George L. Meylan	Thomas A. Storey	James A. Babbitt
1906	Springfield	George Meylan	F. W. Marvel	James A. Babbitt
1907	New York	Thomas A. Storey	Joseph E. Raycroft	James A. Babbitt
1908	New York	Thomas A. Storey	James A. Babbitt	Paul C. Phillips
1909	New York	R. Tait McKenzie	George L. Meylan	Paul C. Phillips
1910	New York	Amos Alonzo Stagg	Fred E. Leonard	Paul C. Phillips
1911	New York	Amos Alonzo Stagg	R. G. Clapp	Paul C. Phillips

1912	New York	Fred E. Leonard	F. W. Harvey	Paul C. Phillips
1913	New York	William A. Lambeth	G. W. Ehler	Paul C. Phillips
1914	Chicago	James A. Naismith	Charles W. Savage	Paul C. Phillips
1915	New York	Charles W. Savage	Joseph E. Raycroft	Paul C. Phillips
1916	New York	Charles V. P. Young	Joseph E. Raycroft	Paul C. Phillips
1917	New York	Joseph E. Raycroft	Edwin Fauver	Paul C. Phillips
1918	New York	Joseph E. Raycroft	Edwin Fauver	Paul C. Phillips
1919	New York	Edwin Fauver	J. A. Davis	Paul C. Phillips
1920	Chicago	Edwin Fauver	E. von den Steinen	D. B. Reed
1921	New York	Fred W. Luehring	Edgar Fauver	T. Nelson Metcalf
1922	New York	Edgar Fauver	James H. McCurdy	T. Nelson Metcalf
1923	Atlanta	James H. McCurdy	J. Herbert Nichols	T. Nelson Metcalf
1924	New York	J. Herbert Nichols	William H. Geer	T. Nelson Metcalf
1925	New York	William H. Geer	Dudley B. Reed	T. Nelson Metcalf
1926	New York	Dudley B. Reed	Allison W. Marsh	T. Nelson Metcalf
1927	New York	Allison W. March	Jesse F. Williams	T. Nelson Metcalf
1928	New York	Jesse F. Williams	Albert I. Prettyman	T. Nelson Metcalf
1929	New York	Albert I. Prettyman	William R. LaPorte	T. Nelson Metcalf
1930	New York	William R. LaPorte	T. Nelson Metcalf	Harry A. Scott
1931	New York	T. Nelson Metcalf	Oliver F. Cutts	Harry A. Scott
1932	New York	Oliver F. Cutts	George E. Little	Harry A. Scott
1933	Chicago	George E. Little	William L. Hughes	Harry A. Scott
1934	New York	William L. Hughes	Chester L. Brewer	Harry A. Scott
1935	New York	Chester L. Brewer	E. LeRoy Mercer	Harry A. Scott
1936	New York	E. LeRoy Mercer	Walter J. Livingston	Harry A. Scott
1937	New Orleans	Walter J. Livingston	Harold S. Wood	Harry A. Scott
1938	Chicago	Harold S. Wood	Lawrence C. Boles	Harry A. Scott
1939	New York	Lawrence C. Boles	Harry A. Scott	Glenn Howard
1940	New York	Harry A. Scott	Oliver K. Cornwell	Glenn Howard
1941	Detroit	Oliver K. Cornwell	E. Craig Davis	Glenn Howard
1942*	No National Meeting	E. Craig Davis	Carl Schott	Glenn Howard
1943	Sectional meetings: Philadelphia, Cincinnati	Carl P. Schott	Delbert Oberteuffer	Glenn Howard
1944	Sectional meetings: Detroit, New York	Carl P. Schott	Delbert Oberteuffer	Glenn Howard
1945**	Columbus	Delbert Oberteuffer	Allison Marsh	Glenn Howard
1946**	St. Louis	Allison Marsh	Carl Nordly	Glenn Howard
1947**	New York	Carl Nordly	Lloyd Jones	Glenn Howard
1948**	Chicago	Lloyd Jones	Louis Keller	L. C. Adams
1949	Columbus	Louis Keller	Glenn Howard	L. C. Adams
1950	Philadelphia	Glenn Howard	Thomas McDonough	L. C. Adams
1951	Chicago	Thomas McDonough	Fred Holter	Richard Jamerson
1952	New York	Fred Holter	Elmer Mitchell	Richard Jamerson
1953	Chicago	Elmer Mitchell	William Meredith	Richard Jamerson
1954	New York	William Meredith	Seward Staley	Richard Jamerson
1955	Daytona Beach	Seward Staley	Ernest Smith	Richard Jamerson
1956	Columbus	Ernest Smith	Arthur Daniels	Richard Jamerson
1957**	Santa Monica	Arthur Daniels	John H. Shaw	Richard Jamerson
1958	New York	John H. Shaw	C. O. Jackson	Richard Jamerson
1959	Cincinnati	C. O. Jackson	Raymond Snyder	Richard Jamerson
1960	Washington	Raymond Snyder	J. W. Kistler	M. M. MacKenzie
1961	Kansas City	J. W. Kistler	Richard Jamerson	M. M. MacKenzie
1962	San Francisco	Richard Jamerson	Karl W. Bookwalter	David O. Matthews
1963**	Dallas	Karl W. Bookwalter	John E. Nixon	David O. Matthews
1964**	Minneapolis	John E. Nixon	Arthur Weston	David O. Matthews
1965	Philadelphia	Arthur Weston	Richard J. Donnelly	David O. Matthews
1966	San Diego	Richard J. Donnelly	Louis E. Alley	David O. Matthews
1967**	Houston	Louis E. Alley	Charles Kovacic	C. E. Mueller
1968**	Durham	Charles Kovacic	David O. Matthews	C. E. Mueller
1969	Chicago	David O. Matthews	Chalmer G. Hixson	C. E. Mueller
1970	Portland	Chalmer G. Hixson	Deane E. Richardson	C. E. Mueller
1971	New Orleans	Deane E. Richardson	David C. Bischoff	C. E. Mueller

*E. C. Davis resigned in August, 1942, to enter the service and Carl Schott assumed the duties of president for the remainder of this year.

**The actual convention date was in the first week of January of the next year in these instances.

GENERAL SESSION ADDRESS

Does Sport and Physical Activity Have A Future in Education

DWIGHT W. ALLEN
University of Massachusetts

I have to apologize for being an outsider—I really don't know what I am talking about when it comes to physical education and athletics; you know I am a novice squash player and that, I think, is indicative of the kind of problem that you have. It is the problem shared by the entire profession of education. You know anybody who has been in a school is an expert, and anybody who has been on a squash court, particularly if he has a key to the gymnasium, is a double expert. So you see, you are always placed under the gun by people who almost know enough to have an opinion even though that opinion is not likely to be enlightened. So I would warn you that you might be dealing with someone whose opinion is not at all enlightened, but I will not shrink from making that opinion available to you anyway.

I think in education we are pretty much in the position of the four people who were traveling by train through Rumania. There was a beautiful young girl, a middle aged matron, a dashing young Russian infantry man, and a Rumanian business man. As they were sitting there talking, the train went through a very, very dark tunnel and while in the tunnel one heard a kiss and a slap. When they came out the other side, everyone was sitting just as before. The middle aged matron thought to herself, "I am certainly glad that that young girl defended her honor from the Russian"; and the young girl was saying, "I wonder why the Russian kissed the old lady instead of me?" The Russian was thinking to himself, "Pretty sneaky of that business man, he kisses the girl and I get slapped for it." And the business man says to himself, "This is my lucky day, I kissed the back of my hand, slugged the Russian and got away with it."

Now it seems to me that in education we are either in the tunnel or we have just come out the other side, but we are pretty sure we don't know what's going on. I think that is true whether you are talking about elementary or secondary education, whether you are talking about undergraduate collegiate education, or whether you are talking about graduate education in any subject or any discipline. Education just isn't much fun anymore and no one is very pleased with it. No one knows what it does, no one knows whether people get educated in spite of it or because of it—no one really knows what the function of education is or what we are about.

I think, if I recall at the high school level in California, the physical education lobby is the most effective lobby, curriculum-wise, in the whole state; and they have that marvelous privileged legislation that says you must spend at least as much time in physical education as in any other subject in the curriculum—that is just about how the law is stated; and this daily physical education requirement has now been in effect fifty years. The pro's that surround that requirement talk about a lifetime orientation to health (you know, a strong healthy body and all that sort of stuff). Yet look at the record after fifty years of this kind of daily physical education requirement. The percentage of adults in the State of California that participate in regular physical activity is less than 10%. Yet you go to New Zealand where the physical education requirement in secondary schools is for everyone to close down school and go have a sports afternoon once a week, the percentage of the adult population participating in regular physical activity is 90%. I put those two things together and I have to shake my head in terms of looking at what the rhetoric says is going to happen and what actually does happen as the result of a program in education.

That particular statistic or particular vignette doesn't deal with collegiate education but there are equivalents to that all over the lot. I mean, we simply don't know what the cause/effect relationships are in education—we don't know. Yet I know this, I know that there are students who arrive in college that learn to hate physical education as a result of the required courses in physical education in college—I know that! I also know that physical education is not alone in that regard. One of the ways that I think we could instantly improve education at the college level world-wide would be to eliminate all requirements because right now more than 50% of the effort, or about 50% of the effort of college faculty, is tied up in teaching required courses. When you negotiate for a new faculty member, you say, "Look, you'll be able to teach the thing that you want after you teach these two or three dog courses that we have to cover because they are part of the program". That is the way the negotiations go in the fields I know. Now I don't know whether that negotiation takes place in physical education or not; perhaps all of your people are teaching only those courses they want to teach. If that is the case, I don't know who teaches the required courses; because I would suspect that what happens is that the required courses are farmed out to teaching assistants where they are available or other junior members of the faculty. If you were simply to eliminate the required courses from the program, my prediction is that everybody would learn more or not—I just don't know that. I don't know whether the result would be that you would have more people oriented to physical activity or not. I know that in terms of my personal experience, and I told you that it was dangerous that I was on the squash court, that it is difficult to get a squash court on off-class hours and it is difficult to fill up the classes during class hours. Now somehow that impresses me as being kind of backward, but nonetheless, that is how it is, that's the way of life.

One of the things that strikes me as a way of improving education, is that we ought to change all the courses that are required to elective and all the ones that are elective should become required. This is part of another speech I give called **The 180° Curriculum.**

I make the serious contention with the analysis at the elementary and secondary level that if we were to take everything we now do in school and do exactly the opposite, the school would improve and that is a professionally considered, well developed opinion. I mean I advance it seriously; not facetiously, because I honestly believe that education has gotten itself into such a fix that it almost couldn't hurt itself—I honestly believe that. I look, for example, at the curriculum in the secondary school and find the skill subjects are required and yet it is pretty obvious that 70% of the kids would learn to read in spite of anything that we do. Maybe eventually, and by eventually I mean in the next ten years, we can turn instruction over in the skill subjects to the mass media and have this take place in non-formal educational settings thereby leaving time in the curriculum to require some of the subjects that are now electives. In other words, the subjects that are now electives have to do with the quality of human life and I don't think that the quality of human life ought to be elective. I think that physical education and activity in sports and athletics have to do with the quality of human life; they have to do with the success of the individual in a wide variety of dimensions, and I think that that should not be elective. I think that that should be a built in part of human endeavor and human activity.

I think, however, that the way we have gone about it has been backwards and I think the way we have gone about it is counter-productive. In many ways, I think that physical education programs, as I know them or hear of them and I make no pretense here about being an expert so you could just disregard everything I say; but physical education programs as I know them suffer from some really bad syndromes. For example, I think that physical education programs often times are part of the problems of racism on campus rather than part of the solution to those problems. Many athletic programs are known, at least, by some segments of their campus, to have racist connotations. I know of a football player at Cornell last year who could have occupied a position on the first team and who quit because he was black and felt that he was the victim of racism. Was it real or imagined? It was real in terms of the action that he took as a result of that program. I don't think that the question of their being villians (you see I don't think this is a question of racism in the cross-burning, brick throwing sense of the word), I think it is something much more insidious. I think this is a product of an insidious, institutionalized racism that takes place in spite of any individual attention. Now again physical education is not alone in this regard, but the idea that the system as we know it, has brought along with it, certain kinds of by-products and these by-products then characterize the system as it gets implemented is the thing with which we are dealing. I honestly believe that the very, very difficult problem of institutionalized racism is rampant in programs of physical education and athletics throughout the country.

The School of Education at the University of Massachusetts has identified combating institutionalized racism as the number one priority of our entire school, and we have found, after getting into that program about one year's worth, that we haven't even begun to expose the dimensions of the problem much less come up with solutions. I mean, for example, the whole idea of standards gets completely confused in the maelstrom when you try and sort out racism. The only answer in higher education generally to something called racist standards is something called no standards. So without racist standards you have open admissions; but if you stop to think about that, that is another type of racist statement. In other words if you can't have racist standards, you can't have any—which is a racist statement. The point is, how do we come up with genuinely, alternative standards. Standards which are relevant to the programs that we are dealing with but which do not have unfortunate and even unintended by-products. You deal with the same problem in other regards—certainly in some instances you have terrible compromises detected and undetected in terms of your admissions' standards for athletic teams. However, here I think I am on your side because it would seem to me that a person who can make it on the football team and become literate enough as a part of that team to at least survive in the university by some minimal criteria and then go off and successfully run a restaurant chain has succeeded. His preparation for life has been about as good as a business school could give him where he might be required to make a 2.7 academic grade point average.

Now this is part of the problem that I think that higher education doesn't know what it is about in terms of the standards it sets and the academic predictors we are dealing with predict only one thing, pure academic success, that is all they predict. We had a wonderful study of that at M.I.T. If you want to have some snooty, educational standards investigated, you ought to go to M.I.T. That is about as snooty as you can get, and because they are so snooty and high class there, of course, when they were trying to see whether success at M.I.T. (in their grades) correlated with success in life, they had to take a pretty high standard for success in life. After all how do you measure success in life; but for M.I.T. it was easier than for most mortal men because they could take an obviously high standard, namely; registration in Who's Who in America. So that being the standard of success, they went back and looked up all the M.I.T. graduates who were listed in Who's Who in America to see where they stood in terms of their decile grade point average. It was expected the highest grade point averages would be at the top, the most successful. Interestingly enough, it didn't come out that way. The people from M.I.T. who were most likely to be listed in Who's Who in America were in the bottom decile grade point average-wise. The next decile to be represented was the top followed by all of those in the middle. Now what would be your advice if you wanted to advise an M.I.T. student regarding success? If you really want to be successful, scrape through and if you can't manage to scrape through then you must be Phi Beta Kappa. Now that is the way to succeed in life—vis-a-vis M.I.T.

I would love to get in and start correlating some of the grades that are given in physical education programs when physical education programs try to become respectable because I suspect it will turn into a real joke. As I see it, part of the problem that those programs suffer from when they try to be respectable is that they are not really being honest in terms of the integrity of their own position. They are trying to give lots of papers and assignments and tests and homework and all those kinds of things so they are legit.

We have a tradition of legitimacy in academics in higher education. You know an academic subject in the United States is uniquely defined; it is different than it is defined any place else in the world or at any other time in history. You go back in history and there are many times when physical education was a part of the real academic curriculum. You go back to Greece and Rome and it was right there as an academic part of the curriculum; but you go into the United States and it is no longer academic because academic in the United States is defined as that in which you have homework. So you see since most people don't have a basketball court in their basement, you can't have homework in physical education. I mean Music and Art are in about the same boat—you don't have an orchestra pit in the basement either so the appreciation of literature is academic and the appreciation of music isn't. The distinction there absolutely amazes me—it mystifies me why we have never noticed the incongruity of that. But what happens in Music Appreciation courses, in Art Appreciation courses, in those really **substantive** courses in physical education like the History of Sports, **by golly** they're academic. They are so academic you can hardly stand to get in the darned thing. That is because we are coming off a psychologically second-class citizen image; and when we get a chance to demonstrate that we can compete up there with the big boys, why we out-do ourselves. Now lest I be accused of throwing brickbats out at you gratuitously I would point out that there is no one in the university with more of a second-class image than Schools of Education. The one thing that I think we have done at the University of Massachusetts in the School of Education is to simply say "We are playing a different game". "We are not going to play your silly little games of academic style and form."

One of the things that is really amusing to me; I mean it is laughable, we have made an absolute, frank, total and complete overt commitment to the program of activism and social reform in education. That is our commitment, that's the ethos of the School. So three years after we began that game, one of the government agencies took a poll and the School of Education at the University of Massachusetts came out 13th in the nation in terms of quality in its research program. Now you figure that one out. One of the things it says to me gentlemen, is that we have been playing the wrong game. I mean, instead of trying to succeed on our own terms with our own integrity which I think would produce the respect we are seeking, we have been trying to do it on somebody else's terms which guarantees our failure. There is no way that you can count things in physical education that can compete with counting the comma's in Shakespeare. There is just no way! There are just so many things that you can do in that game and you run out real fast.

There are some fields with potential. I mean the physiology of human activity does have some potential. Here, what you are doing in an applied field is taking on the aura not of the physical education part but the physiology part. Rather than saying we are just going to borrow some physiologists to do our thing, we try to turn them into looking like P.E. people. See the point I am making. And rather than succeeding on our own terms, again we try to borrow the expertise of other fields as a way of creating an image of success. I think, personally, the fields of leisure and physical activity and the fields of a healthy mind and body deserve more than simply a reflected treatment from an academic tradition which itself is under attack. One of the things that might happen is that just about the time that we figure out how to get smart enough to look academic, the academic tradition is going to go down the drain. I would hope that we can be smart enough to just pass all of that by and to see if we can really go back and analyze the field and see what the essence of a general education in orientation to physical activity might be. I mean, just what is the essence of orientation to physical activity. Once you figure that out, then you might be able to figure out how to provide leadership in that field.

Right now, of course, one of the things that gets very confused is the bifarious between the responsibility of the physical education department to educate regarding participation and to provide spectator sports. That is a real problem you have and to your detriment. And to your credit, I know that one of the things you are trying to do in terms of being more royal than the king is to make sure that at least when you are among yourselves you sort of write down the importance of athletics. But then you see, you go back on your own campus and you use that as a lever to get a bigger budget. You are playing a double game all the way around—at least this is the way I detect it. I would rather be a little bit more honest, I would rather look at what is the **role** of physical activity as a spectator sport in this country and what is the role of physical activity in terms of participant activity in this country and is there a way that spectator activity can lead to increased levels of participant activity. There might be, for example, that we recognize the value of the seminars which are held on television every Saturday and Sunday during football season. You know if someone really did an analysis there in terms of showing the increase in general education levels of football critique and skills, and sport in general. I mean the average network television broadcast is probably as good a coaching clinic as you can find anywhere, **literally speaking**, in terms of the amount of technique available. This is something which is available at the general education level.

Now it seems that one of the things that happens is that it becomes very threatening to the professional because it takes away your mystique. Anytime that you can allow an elementary student to look through an electron microscope, it takes away the mystique of the Ph.D. who is using that electron microscope to try and convince people of the esoteric nature of his training and responsibility. You see, when you have coaching clinics on network television for about seven or eight hours a day, two days a week, over a lifetime, you have a mystique problem that is getting more and more real. Furthermore, it is getting more generalized because it isn't just football now. The same formula is spreading to other athletic activities. They are even trying to make it in terms of hockey as a spectator sport on television and golf and tennis, etc.

The question that I come back to, is that it seems to me the key here is to find the relationship between spectator sports and participant activity; I don't think that we have looked at that very carefully. I don't think the programs in elementary, in secondary schools and in college have really addressed themselves very significantly to that relationship. I don't have the answer here—I know, for example, that when we set up an alternative school in Merion, Massachusetts, and we used the New Zealand model where the faculty and students all went out and played soccer two afternoons a week and that was their physical activity, I know that we were able to involve kids in physical activity that we had never been able to get involved in physical activity before on a voluntary basis. I know that there are some cards that we could play. I know that there are certain kinds of things, certain ways that we could go about it.

One of the things that is happening is to put more emphasis on individual sports, the integration of men and women's physical education activities. Do you realize that on some campuses I hear that they still won't let men and women play tennis together in class. Now I would like to know from this august body, unless I am outdated, (am I outdated?) is that gone now—I mean does it still exist? I would like to know what the professional rationale is for segregating men's and women's tennis. When I put that together with all the highfalutin language that talks about a lifetime orientation of physical activity, I mean I simply can't put it together—particularly in mixed doubles! I would like to know why it is that way back on your campus. You see I think that your organization ought to take a position on this and then any member of the organization who wouldn't buy the position, drum him out of the organization! I mean you can't afford to have that kind of nonsense going on in 1972. Now if you disagree with me, fine; but if you agree with me then you ought to do something about it because that is one of the troubles with professional organizations.

Professional organizations, as far as I can detect, are mostly an excuse to go off to New Orleans rather than to get a job done. I would like to pass out a questionnaire sometime which would ask people attending conventions, and not just physical education conventions but all conventions, what is it that you really expect to get at the convention which will enable you to do something different when you get home. I daresay that 95% of the people who come to conventions come to conventions to share good times and old buddies. There is no potential in a convention like this to find some sort of dynamic new leadership in a profession. I guess I think that is kind of crummy. I would start the agenda with something like mixed doubles because I think that is such an obvious thing for future directions. If that is really controversial, then have at me in the discussion period, but if it is not controversial then I come back and ask why you don't instantly do that. If you don't instantly do that then I want to know what the problems are and I want to know how you go about getting around those problems.

Just take a little thing, I would like to know, for example, why there are certain kinds of activities in physical education programs where required physical education doesn't produce credit but elective physical education does. I want to know why if you are playing squash as an elective that it is more important for graduation than playing squash as a requirement. There are some schools where the students playing on opposite sides of the net have found one guy is taking this activity requirement for graduation and the other guy is taking this same activity as an elective. The guy who is taking it as an elective gets credit towards graduation and the guy who is taking it as a requirement doesn't. It is a zero credit requirement which I think is very demeaning. As far as I am concerned, if it is zero credit then it shouldn't be a requirement. That's backwards, if you are going to require someone to do it, then you should give them credit, if you allow someone to do it as an elective, don't give them any credit. One of these days I am going to go over to Dave and get credit for squash playing because I think I am going to sign up for another degree or something. But that kind of nonsense, in terms of the whole credit business, is something that I would like you to look at.

I would like you to look at it another way. Why is it in physical activity that credit comes out even juneses anyway. I would think that if you have such a thing as a requirement for graduation in terms of physical activity that you should have advanced placement in the same way that students can get advanced placement credit in Chemistry. Here, I put it on you, students can get advanced placement credit in Chemistry, that's really academic; but I know a number of colleges where they can't get advanced placement credit in physical education. Now I would like to know why the star linebacker on a high school football team shouldn't automatically be given ten units of college physical education credit—doesn't that seem reasonable to you? If it doesn't seem reasonable, I would like to know why. I would like to be educated on that because I would like to know what it is that determines whether a person gets credit. What I suspect is that you have fallen into a policy just sort of accidentally without even recognizing that credit is somehow related to the number of hours that people run around in a gym suit. I would like to know if perhaps there might not be a better standard of credit than the number of hours that a person runs around in a gym suit. Are we saying that education is somehow only time oriented or is there a performance criteria. That is really what I am saying at a highfalutin, philosophical level. I think education, until it gets oriented to a performance level, is a joke; because there are some students who start out at a level higher, before you start giving him credit, than the other student will have after he graduates as a major in physical education and I would like to know how to sort that out.

I would also like to know what the rationale is as I look at a number of physical education programs and again this goes back to the thing where I think one of the things that physical educators suffer from is that they try and look too academic. As I go through and review the requirements, I notice that more and more. Physical education people have found really academic, neat looking things for people to do. I look at the agenda of your conference here and one of the things that appears to be the darling of the current P.E. program is the History of Sports. I notice that that comes in at least twice and you are doing all these things to make things more proper. So a physical education major has to know the history of sports. Now for some purposes, I grant that that may be very useful, but does everyone have to know the history of sports and the history of all sports and why? Or the physiology of movement, or any other thing?

Lest you think I am just picking on you, I would also go back and say that if you want to see someone who ought to have an inferiority complex, it ought to be the high school Social Studies teacher. He ought to have the most gigantic inferiority complex of any teacher anywhere because the research evidence shows that you can take high school social studies in any order or leave it all out and it has no influence on the way students do in introductory courses in Social Science at the college level. I have a wonderful time when I speak to social science people. They are in the most favored position of anyone in the entire curriculum because we have research evidence that what they are now doing doesn't make a bit of difference anyway so they can't hurt anything. What a marvelous circumstance under which to experiment, isn't that right? However, it happens just exactly the opposite. When people are a little bit suspicious that what they are doing doesn't make any difference anyway, they redouble their efforts. That is the definition of a fanatic! A fanatic is a person who—having lost sight of his objective—redoubles his efforts. That is higher education generally.

I think the day is about done when we can hide behind a time metered criterion, a bag of sand as a criterion for an educated man. I think that is totally unsatisfactory. I think that if you have any guts at all that you will stand up and develop performance criteria and be willing to give ten and fifteen and twenty units of advance placement credit in physical education for physical activity. And again, when it comes to the discussion period, have at me if I am wrong about that because I would like to take this opportunity to become educated.

Another thing that is of real concern to me is the fact that I don't think physical educators talk to other people very well. You are not alone in that either, but you don't talk to each other in terms of finding ways to build bridges to other applied disciplines. Physical education is, in many respects, an applied discipline. It could be a component program in a lot of other programs. Let me give you some avantgarde kinds of examples as well as some traditional kinds of examples. I think the physical education department should be right in the middle of any living-learning experiments in college programs. You know the experimental dormitory program. But what happens is, that you see those experimental dormitory programs themselves feel like second-class citizens and so they are working very hard to make sure that the academic components to their programs are first class so they are not going to want to have much to do with you because you wouldn't be part of the solution to that problem, you would be part of the problem. Yet if you are talking about a living-learning environment, it seems to me that to find a way to have some sort of an intramural equivalent in the dormitory setting itself is an obvious extension of the living-learning notion. Yet I don't know of many physical education departments, and this may be just my lack of knowledge, but as I view the living-learning experiments around the country and the dormitory oriented academic program; very rarely do I see a physical education program as a component part of that. Again, if I am wrong, educate me; or if somehow my image of what that is all about is wrong, educate me!

Another thing, it seems to me that social service ought to be a part of the physical education program. Let me illustrate what I mean. I think there are an awful lot of kids around who have very bad physical education experiences during the elementary and secondary years—their experiences are very bad. I would think that with a little bit of imagination that social service programs could be developed at the collegiate level which would have as their objective enriching the physical activity and the opportunities for physical activities of students on the street. You know, kids on the street. I would like to see taught somewhere and I am sure this is taught, physical activity for the block. What do we know about physical activity in games that could be applied to the ghetto—without facilities—how might we organize the kids in the block in all kinds of things that might take away and siphon off some of the aggressions into a constructive role. I think that is a very important kind of challenge. I think it could be a very important contribution to the quality of life in this country because I go back to the fact that I think somehow physical activity is oriented to the quality of life in our society and this should be an orientation for everyone.

I speak, perhaps, autobiographically, I tend to be very busy doing a whole lot of other things but I feel better when I engage in regular physical activity. I will stand up and give a testimonial to that—I mean, you have succeeded with me after forty years. But the point is, why aren't you succeeding with society. I think society weighs the program and finds it wanting when only a small percentage of adults participate in regular physical activity. Why is it that most people conclude that the reason participant activity has gone down is because spectator activity has gone up? I don't see any rationale why spectator sport should compete with participant sport. Now you could maybe make the argument that you don't have enough time left over to participate, but I think this is hardly a valid argument, I think you must look elsewhere for the answer. I think the elsewhere is that somehow as the society has become complicated, adult sport activity has become expensive.

I would like to throw out another challenge, namely, can you give me a program as to how to get physical activity and make it available to the general population—particularly in the horrible climates. I say that with a California bias. You see tennis isn't nearly the problem in California as it is in Maine. Tennis is a gentleman's sport.

I finally found out why after I moved to Massachusetts. In California nearly every kid on the block can play tennis all year but when you go back to Massachusetts, the only people who can play tennis all year are those fortunate few who can join the gentleman's club and play indoor tennis. That's part of the Eastern establishment at its best so that gives an image and that image even goes out to California where it has no meaning. That is another kind of thing; the difference bwetween image and reality in terms of the curricula we are dealing with.

Another problem, as I see it, is the transition between team sports and individual sports. I have seen that kind of an argument take place in your literature and I know that is not a new idea; but I think perhaps there needs to be some new approaches to that idea. I would like to know, for example, why there aren't courses in physical education devoted to dreaming up new physical games; I would like to know about that. Somehow it seems to me that if you encourage people to dream up new games, I mean why is it, you know someone dreamed up basketball not too long ago. I would like to, for example, make as a requirement for any physical education major, if I am going to require anything, that he dream up a game and teach it for at least a semester to other people to see if he could make it apply. Of course, you put in the catalogue X-1, Joe Doaks—new game to be announced.

Somehow I think that if we made athletics and physical activity more informal you would be in better shape. I think that one of the problems is that physical activity has become so ritualized. Even calisthenics activities have become ritualized. There is the Canadian Air Force Program. You do so much of this and so much of that and so much of something else and in that order, thank you. I look at that and I scratch my head; and I say to myself, "I must not know enough to know about this," because it never occurred to me that the ritual of doing it in order or so much of this and so much of that was all that important. Now I can understand the general principle behind an increasing level and all that, I can understand those kinds of things, but the ritual of physical education is something I really consider to be one of your problems. I think there are rituals in physical activity all the way around. I stand there on the tennis court during the summer time and I take in the last five minutes of many tennis classes and you have never seen more ritualized activity. After the whistle blows you complete one game and quit. That's the ritual and furthermore, if you have completed a game before the whistle blows, look at your clock and it is three minutes before the end of class, no go—you must start another game; and you wouldn't believe some of the ways kids get around this. I mean to see all the sneaky, cheating, simulations that go on as a result of that kind of ritualistic rule. And I say now is this physical education department teaching tennis or is it teaching people to manipulate the instructors and I think all this unintended learning is going on because we have made much too much of a ritual out of the way in which we go about instruction. For example, I have seen instructors beat on people for standing and facing the net when they serve. Now I am talking about beating on them psychologically—it is all on a very gentlemanly level. I have seen some people who can serve darned well facing the net but because there is a rule book or something somewhere that says you don't do that, anyone who does that is made to feel like a crumb bum. At some point, you see, if that person was in training to be an Olympic champion, I could see maybe getting excited about this.

I would like to know why there isn't a theory in physical activity (here I am apologizing, because I am way out, because I am trying to restructure your field), but why isn't there a theory somewhere that would say that for certain kinds of activity the person who is the coach, trainer or instructor, should take the naturalistic ability of the person he is dealing with and build on that in terms of making a satisfactory performance rather than starting with an arbitrary form which a person has to learn by the numbers. I suspect that if you found a way to start with a person's naturalistic ability and make a transition you would be ahead. Now hear me very carefully, I am not necessarily saying that you don't need to get the form eventually but I am saying maybe you should start with his naturalistic ability and make him viable as a player so that he can enjoy what he is doing and then give him the interest and refinement. Then to shape it into other kinds of things might be a better protocol. Now I know the arguments that say, if you learn bad habits you have bad habits for a lifetime. The answer to that argument is, therefore, is it better not to ever do anything at all and not play at all for a lifetime. That is the alternative I see in terms of the level of physical activity that we have or have not encouraged in our culture. Of course, the real folk heroes in physical activity are the people who can go over the bar backwards. Anyway, somehow it is a mark of an individual aberant kind of a virility to be able to sort of thumb your nose to style and yet perform well. Maybe those bad habits are going to be too hard to retract.

Now that is no different, of course, than teacher educators if you want to see someone with bad habits, teacher educators probably receive the number one nomination of the century. Teacher educators are the people who believe that you have to have all that foundation junk before you can even step your foot in the classroom for student teaching and yet all that whole process of credentialing has done is to insure the viability of private education, do you realize that? Because private schools have been able to hire good teachers for about one-third off because they hire the people who can't get a job in public schools because they won't go through that credentialing process so they get very fine, expert liberal art's graduates who are non-credentialed. The credentialing process has virtually guaranteed the viability of marginal private schools by that process. As to the quality of instruction, I think it is absolutely mute whether the credentialing process improves anybody as a better instructor or not. I would like to ask you the question.

Do you have any evidence in your profession that it is the performing athlete who makes the best physical educator instructor, at any level, elementary school, secondary school or college? I suspect that the person who is the compulsive, performing athlete, who has had to have a regimen of excellence to allow him to come to the top of his profession may have learned the value of a regimen which is inappropriate for a general education experience. It may be that the performing athlete has had to go through a training and conditioning process which is absolutely detrimental to his being an instructor for people who are not bound on a professional track. Maybe we need two kinds of coaches, maybe we need those coaches for intramural activities who have never been performing athletes and those coaches for the varsity who know and value the regimen and are able to perpetuate the program.

Now that is an issue—I raise that issue—that's what I mean when I say maybe the wrong kind of people are in a position of leadership and calling the shots and developing the training programs, etc. Maybe we have the wrong kind of people in terms of the father figure of the coach. The authoritarian figure of the coach—the coach's word is law. You don't dicker with what the coach says. Maybe that is inappropriate as a model for education in the 1970's—I don't know. But I would like someone to be investigating what would happen if you were to train democratic coaches. Now maybe you wouldn't win as many games, but then maybe you would, too; I just don't know but maybe there needs to be a whole new area of research opened up here in terms of the image of the coach. Maybe the image of the coach, again, for the participant level that I am talking about, the general education level, the level that addresses itself to the quality of human life, maybe that is where the image needs to be changed, I don't know.

I have a few other ideas. Now again I apologize because these things are probably things that you have been talking about all along and I just bring them to your attention or I bring them to my attention because I haven't thought about them before; but if you have been thinking about them all along, you have hidden them from me in terms of the cursory look that I view of your literature. As a Dean of Education I kind of look sideways at what some of my colleagues are doing and I don't see these issues as major issues. You see I don't get people coming and asking me for advice, help or counsel in some of these areas. I see them coming and asking for the use of the video tape machine. For what—to go out and make more regimes—I see that but I don't see people coming to me to ask for the kinds of things that might address themselves more to a general education level.

I feel that physical activity is going to have to have an increasingly important part in adult life, because I think the survival of the species is endangered by our just sitting around on our tail ends and doing nothing. I think not only is the survival of the species in danger but this makes people feel grumpy towards each other. I think there is a whole area of a sense of well-being and a sense of accomplishment that can come through constructive physical activity. I think physical activity can help people find a balance in terms of analogies for other parts of life's endeavors. To try and find a balance between cooperation and competition. Physical education at its best does that and provides people with new models of cooperation and competitiveness that go hand in hand. See, I don't buy the groupy-groupy notion that you want to do away with competitiveness in school. I think that there is room for a sane level of competition but I think that physical activity at its worst, like in Little League, completely "does in" the balance between cooperation and competition. I would like to see ourselves address that issue of the proper level of cooperation in competition because I think you may develop some models that are useful in other parts of the profession.

You have made some really spectacular contributions to my thinking. For example, I have often sighted the differentiated staffing models of the coaching staff as a model that could be well emulated by other teaching structures in the profession; but the funny part of it is, I don't see that model transferred into your own academic classrooms. I have always wanted to have a conversation with someone about that. Why did you get this wonderful attitude of differentiation and cooperation in hierarchial responsibilities in your teaching programs out on the field and then you get back in the classroom and you look more like you are following a model from the English Department than anything else and I just wonder about that because I think you have something to contribute there that we could use.

I think that in many ways you have contributed to some of my thinking in terms of showing in high relief some of the negative aspects, I go back to the time orientation of a physical education curriculum. I mean, in high relief, its placed time as the criterion for high achievement. You have never been able or willing to grade people seriously in physical education. I mean, you just haven't. I think the grading systems in physical education are by and large a joke. I have never seen a grading system in physical education that has worked and you should either recognize that it is a joke or you should address yourselves daily to trying to develop a legitimate grading system. The grading systems I tend to see are (a) simply time oriented (how many hours you put in), (b) whether or not you have taken a shower or whether you are tardy or not; in other words, whether or not you have made it easy on the physical education staff. Now I sort of put those things all in one general category and beyond time and convenience, I don't see any serious efforts at grading the level of performance in any kind of general education classes. One of the things that has always amused me is the fact that I think that at the elementary and secondary level at least, that if you have a required course, that the teacher should be prohibited from giving failing grades. In elective courses, I think it is fine to give failing grades, you tell kids what they are expected to do and then if they can't live up to it, fail them. If they know in advance what is necessary and they can't live up to it; fine, they can fail. But if you require them to be there, then I think I ought to require of you to present a program they can succeed at.

Now I come back to the physical education activities and I do not have any performance criteria. Are there grading systems around that I don't know about, serious grading systems that address themselves to some objective criterion of performance that is predictable by students in advance that is not related to either time or convenience of teaching staffs; I don't know. And, I would further challenge you to this, if you can't develop such a grading system, then get rid of the mockery and go to either a pass/fail or better still a pass/no credit system because I fail to see that it is sensible to write down when someone fails. If you were to write down all the things I fail at, that is a very long list; and so long as I don't represent that I can do something well, there is no reason to write it down. I think that if you were to go to that level of performance criteria in physical education classes, you could make immediate strides in terms of both increasing the orientation to physical education activity and feeling better about it yourselves; because I think it would be very easy to describe elementary performance levels. If nothing else, you could say, "If you can beat the coach playing left-handed that's a C, if you can beat him playing right-handed, that's an A", (you know, something like that), and then you pick your coaches well. This is the new criterion for faculty recruitment—to have an A graded faculty or you could do it more operationally; you see, seometimes you do that informally anyway. I mean, Dave, in order to make points with his boss plays his worst sport against his bosses best sport, and that way they come out about even. I think that you could do that. So you see you have the football coach play tennis. If you can beat the football coach at tennis, then you get a C. It is that kind of swapping off.

Seriously I think that we could prescribe certain kinds of performance elements, namely; you can get one unit of credit or one course worth of credit or whatever if you can play tennis in a certain way or with a certain level of form with a certain result. You can get five credits in tennis if you can play at a different level. Then if you want to circulate and become a multiple sport man, you can get multiple credit because it is multiple achievement, but after you have gotten to a certain level, and you have peaked, then I question whether you should get anymore credit for repeating that. Now maybe you would argue that one of the things you want to give people credit for is regular participation over time. All right, maybe that is so, but I question that in terms of an academic program because if a person needs to get credit to maintain that regular participation over time, I think that may be counter-productive and counter-indicative of his then participating over time without credit, see the point I am making. So I think you ought to prohibit from yourselves, this is my offhand impression, time as a criterion once the performance level has been obtained. I would like you to think about that. I think that you ought to do "in-grades," go to a pass/no-record system, prescribe certain levels there.

He suggests that I have talked long enough. He says, "Shut up and let them talk."

Olympism and the Genesis of Modern International Olympic Games Philosophy

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SAPPORA AND THE ELEVENTH WINTER OLYMPIC GAMES

In 1968, the winter Olympic Games at Grenoble witnessed 1,293 competitors from 37 countries. The eleventh winter games of the modern era will take place in breathtaking Sappora, Japan, from Feb. 3 to February 13, 1972. The experience of the 1964 Tokyo summer games has been utilized by the resourceful, affluent, sport-loving Japanese. These games will probably be the largest in history; a unique marriage of Japanese hospitality with an awesome electronic and computorized thrust can be anticipated. Before and after the Games themselves, millions of Japanese youth will be galvanized in a national cultural commitment typical of these remarkable people.

MUNICH AND THE TWENTIETH SUMMER OLYMPIC GAMES

The German organizing committee anticipates "a joyous and relaxed" games. Through extraordinary preparation, all 21 sports will take place in ultra-modern, modest-sized facilities—all within an hour's walking distance. Five thousand workers from a dozen countries—a joint international undertaking—have completed preparations for the most technological of Olympics. Yet no modern games have worked so hard for the successful marriage of sport and art as the city of Munich. Traditional and modern art exhibitions, reproductions of recent archaeological excavations from Olympia, Greece, plus music, museum, and cultural displays will make the Bavarian city a crushing Mecca for a million visitors from August 26 to September 10, 1972.

The 1968 Games witnessed 6,059 competitors from 113 participating countries. The newest Olympic Village is prepared for 12,000 guests—a facility that will later be converted into 800 low-rent student apartments. The 950 foot needle-tower that dominates the Munich horizon will run an elevator 650 feet in an olympian seven seconds. Accommodations for 5,000 members of the world press, 80,000 seats in the main stadium, a 660 meter concrete canal for canoeing, the most stupendous yachting setting at Kiel, 60 T.V. channels, and 110 radio corporations, are several features that should entrance an anticipated 800 million people. Twelve hundred hours of sports film will be taken—the first ones from Olympia where the symbolic torch will be illuminated from the rays of the sun. A relay team of 5,100 of the world's youth will carry the flame the exact 5,100 Kilometers to the Olympic stadium for the Opening Ceremonies. For the week prior to the games, 1,500 scientists from 75 countries will discuss "Sport in our World, Its Chances and Its Problems." Nothing will be spared, nothing overlooked. Yet, the spectre of gigantism and vulgar display —of excessive and meaningless pagentry will, hopefully, be avoided. All efforts will be made to circumvent mere electronic display of measured and measurable performances—of records and of medal counting. Mr. Willy Daume, President of the organizing committee, put it this way:

> We detest all forms of pathos, hollow sentiments and false solemnity, which no longer appeal any way to the youth of the '70's. . . . Whatever changes are or will be made, the Olympic Games will only continue to be organized as long as they are more than the mere sum of the competitions and championships held. . . . I hope that after 1972 the world will speak of the 'Joyous Games' of Munich. . . . [1]

THE TREMULOUS WORLD OF OLYMPISM

Very early in the evolution of the modern Olympic movement, its founder, Baron Pierre de Coubertin, coined and defined Olympism in a breath-takingly idealistic but not totally lucid manner. This philosophy of international amateur sport owes certain of its characteristics to (1) the historically harsh competitive ancient Greek view of life and athletics. Grafted imperfectly to this famous imperial Greek philosophy—religion are three important modern views. They are (2) the eighteenth century English high aristocratic psychology of sporting amusement —pure, direct, and successful in its thrust to fill the vacuum of leisure time with innocent and not-so-innocent fun and games (3) an overserious English Public Schools concept of nineteenth century Muscular Christianity—epitomized imperfectly in the remarkable rein of Rugby School Headmaster, Thomas Arnold, and (4) the agnostic idealism of Pierre de Coubertin himself—a bewildering, often-times beautiful blend of heroic vagaries. These four facets of international sport flashed brightly and simultaneously into a twentieth century Olympic amateurism that is both a model and a source of world disquietude.

Citizens of ancient Athens frequently had a perfectionist attitude—a passion for quality, a total commitment at winning and being "Number One." The aristocratic Greek strove for noble excellence in his competitive sports. He gained immortality in his never-ending quest to be best and to be first—a Western attitude of immense importance. The Platonic ideal, in part based on the common Greek desire for a higher human development, sought success, intellectual and physical perfection, in a manner fully understandable in the modern Western world. For the average Greek, all kinds of winners, especially champion athletes, were his earthly gods.

An ancient social stratification in eighteenth century England seemed magnified by an industrial revolution that saw enormous wealth inequitably distributed. The landed gentry had as little to do with the lower class as was economically feasible and socially correct. This vigorous and sports-loving English aristocratic class with significant leisure time found amusement in frequent competitive sporting meetings among his own kind. More to his liking, however, were boat-races, foot-races, or contests of skill, strength, and bravery between his own plebian workmen and those in the employ of rival gentlemen. Large sums were bet on these engagements—delightful pastimes even to the gentleman who lost his wager. Cash awards and prizes, frequently glittering sums, were awarded the ruggedly serious worker—athletes. The two kinds of men had little to do with each other; it was inconceivable that they should engage in athletics together. They continued to go their separate ways. A century and a half of such parallel but distinctly different competitive experiences merely accentuated more profound differences between the "amateur" gentleman and the "professional" journeyman. Frivolous and amateurish sporting pastimes were natural to the gentleman dilettante; serious and quality athletic competitions were natural outcomes of another class whose motives were dominated by money. It was natural for the already wealthy man to view his sporting involvement as less serious, more amateur and pure, than did the Yorkshire footman who trained year round to beat an hour for ten miles and win a purse of a hundred guineas. As long as the two kinds of Englishmen went their separate athletic ways, there developed a relatively unclouded social class definition of amateurism and professionalism. Only recently—in the past seventy-five years—have the less than wealthy spoiled this concept by pursuing victory in amateur

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[1] Willy Daum, "Mr. Willy Daume talks about the Munich Games," **Olympic Review**, 34-35 (July-August, 1970), 374.

Olympic competitions for increasingly complex motives. The poor and middle income athlete is unquestionably "at fault" on this issue of the commercialization of the amateur spirit. Increased democratization has made perceptible inroads on the bastions of the aristocratic definition of amateurism. The denegration of a pure athletic motive follows. The process will continue into the twenty-first century.

The figure of Thomas Arnold, D.D., headmaster of the Rugby School from 1828-1842, is one of the most important and least understood personalities in the evolution of the modern Olympic Games. Pierre de Coubertin's conception of a virtuous and sports-oriented Rugby School atmosphere (somewhat erroneously credited by him to Dr. Arnold) was the single most important influence on the life and thought of the Games' founder. The Baron's philosophical approach combined the wholeness of the Grecian spirit of antiquity with the extreme nineteenth century moralism of Thomas Arnold. Coubertin's concept of Grecian thought, exemplified in the trinity of character, intellect, and body, was inexorably fused with the image of disciplined austerity and sportsmanship of the English Rugby School. The kind of young man graduated from Arnold's Rugby School and the other aristocratic Public Schools epitomized (especially to Coubertin) the apotheosis of the honorable English muscular Christian that eventually ruled the seas and planted the British flag in every corner of the world. This Rugby School syndrome of sporting honor and glory without profit became a fundamental principle of Olympic amateur philosophy or Olympism.

Lastly, the thinking of the peculiar and remarkable Pierre de Coubertin himself contributed to this philosophy of Olympic amateur sport. His simplistic view of ancient Greek athletics, his own joyously amateur ventures as an athlete, and his keen, although sometimes exaggerated view of the role of sport in Germany, England, and America, proclaimed untainted amateurism as the wisest doctrine for his new international games. Olympism as conceived by Coubertin stands on the premise that no philosophy and no religion preaches loftier sentiments than those included in "pure" amateur athletic competition and the amateur code. Physical beauty, moral strength, and a certain cosmopolitanism are legitimate outcomes for Olympic contestants.[2] "So Coubertin's 'Olympic idea' is directed toward an educational programme which understands physical culture as a school of chivalry and moral purification, of aesthetic experience, of an effective development of body and mind."[3]

THE 1992 OLYMPIC GAMES

It is not an absolute certainty that the Olympic Games will last out the century. The cancer of commercialism, the unbearable financial burden inflicted on the host city, the ever-swelling bureaucratic gigantism of the Games, and the total universal disorientation regarding the spirit and the letter of amateurism jeopardize their continuance into the next century. Yet their demise would be a great loss and the resulting vacuum would be hard to fill. The fact of the matter is that far more good than evil has come from the past seventy-five years of Olympic competitions. Much that has been written on the Games is negative, but then the essence of news is strife, and marketable print thrives on controversy. The vast majority of the forty thousand men and women competitors since 1896 have found the preparation for and participation in these world sporting festivals a life-long positive force—a meaningful personal experience.

The present collision course of the modern Olympic movement can be halted only by drastic means. Many suggestions from all over the world are being thrust into the foreground. Some are irresponsible and lack any understanding of sport history or athletic psychology. Most of these alternatives are understood by the International Olympic Committee (I.O.C.); a few are under consideration by members of this governing body. None should be rejected without a thorough study of all possible ramifications. The Olympic Games is running a high fever; a return to a homeostatic state is imperative. From there, changes need to be made to insure the healthy perpetuation of the Games. Some of the remedies, indeed, seem to smack off cutting off the head in order to cure the cold. Among these prescriptions are:

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[2] See Chapter X, "The Conception of Modern International Olympism," in John A. Lucas, "Baron Pierre de Coubertin and the Formative Years of the Modern International Olympic Movement 1883-1896." Dissertation, University of Maryland, 1962.

[3] Hans Lenk, **Werte Ziell Wirklichkeit der Modern Olympischen Spiele** (Verlag Karl Hofmann Schorndorf bei Stuttgart, 1964), p. 315.

1) a completely open Olympics for all extraordinary athletes of the world—regardless of employment or of contrived "amateur" and "professional labels.
2) a slightly less traumatic proposal would allow professional athletes to compete in a different Olympic event from their own speciality.
3) total elimination of the "artificial" winter Olympic Games.
4) drastic surgery on the tempestuous Olympic team sports—possibly to the point where only individual events remain on the Olympic register.
5) a reduction of certain women's events.
6) a significantly more liberal policy by all member nations and the I.O.C. regarding training camps, scholarships, per diem expenses, prizes, radio and television appearances by athletics, a proliferation of "broken time" policy, and, finally, a new concept for the selection of Olympic athletes, coaches and administrative personnel—a process in which the athletes themselves play a greater role.
7) severe modification of the Coubertin-conceived method of selecting I.O.C. members—up until recently a marvelously effective, pacific, wealthy, and self-perpetuating sports-administrative body.

The single most wretching problem connected with the Olympic Games is the quadrennial selection of a host city. Fewer and fewer metropolitan areas desire the Games. Absolutely prohibitive costs and consistently ineffective post-Olympic use of massive new facilities have dampened the spirits of national and city leaders. Recouping their five to six year financial investment in the space of five to six weeks becomes an all-consuming and impossible mission. Almost everybody suffers. Baron Pierre de Coubertin was a visionary idealist with a great dream—partly fulfilled. His admonition that every four years a different city be privileged to host the Games is impractical today and will contribute to the weakening of the Olympic movement. Consequently, the following new suggestions are made which should be given immediate consideration and, hopefully, become a reality before the Twenty-Fifth Olympiad of the modern era:

1) Future Olympic Games be held continuously at a single site.
2) This site, "The International Olympic Center," would be located in central Switzerland as a permanent and viable manifestation of universal sport.
3) The forty-four events of the modern games would take place during four distinct ten-day periods of the Olympic year. Some 10-12 events, appropriate for the season and climate, would be contested during Switzerland's Fall, Winter, Spring, and Summer months.
4) Local, national, European, and international sporting events—suitable to the season and including both amateur and professional athletic festivals —would be planned for and conducted by a large, permanent, highly trained staff of sport administrators during the non-Olympic seasons. This same team, of course, would organize the forty days of Olympic competitions during the year of the Games.
5) A rich and ever-growing tapestry of world-wide indoor and outdoor recreational and leisure sporting experiences would be available for hundreds of thousands of sports-loving enthusiasts and tourists.
6) A multi-billion sports and recreation facility would be built over a twenty-year period, culminating in the 1992 Olympic Games in Switzerland.
7) The enormous initial cost and monies for the continued functioning of "The International Olympic Center" would be obtained by:
   (a) private and public donations—world-wide.
   (b) loans from the international banking community.

(c) income from a leisure-oriented and cosmopolitan population making 365 days-a-year use of the world's most magnificent sporting facility.

(d) income from year-round competitions—local, national, European, world, amateur and professional. Several million visitors and sports spectators could be anticipated at the site.

(e) a voluntary yearly membership fee for each of the world's nations; 1/20,000th of a country's gross national product (GNP) would not burden any nation more than another. This money would be deposited in Swiss banks in the name of the I.O.C. (International Olympic Center).

(e) during the Olympic year, each nation would pay $1,000 per representative (athletes and administrators) for competition in any of the seasonal Olympic sports.

No nation would be financially overburdened nor discriminated against; every detail would be executed efficiently and impartially by the professional staff of sports administrators, physical and recreational educators, physicians, and a team of permanent, well-paid specialists (including health officers, physiologists, biomechanicians, historians, and a core of social scientists).

The Baron Pierre de Coubertin's dream of speaking a common language through the medium of cosmopolitan and honorable sport was a grandiose and unique idea. The fact that it has fulfilled some of his visionary plans, yet fallen short of full potential can only act as a catalyst for today's sports leaders. The 1992 Swiss Olympic Games can go a long way in perpetuating this most important social phenomenon. After all, those among us who love beauty, peace, athletics, who believe in fair play, are advocates of Olympism, and are Greeks in the highest sense.

International Relations–Ball State University and Yeungnam University, Korea

ROBERT KORSGAARD
SUNG JAE PARK
Ball State University

INTRODUCTION (Korsgaard)

It was in 1965 that a young man from Taegu College, Korea arrived in my office to discuss arrangements for the pursuit of his masters degree in physical education. He had attended Kansas State Teachers College as a graduate student and later successfully operated private Judo schools in St. Louis and Muncie, Indiana. As he spoke to me, it became apparent that he was not achieving fulfillment and had aspirations that could not be achieved through his judo schools. It was at this point in his career that he concluded that he should further his education with a three-fold objective of dedicating himself to physical education, developing human relations and fostering international understanding and good will.

The young man, Mr. Sung Jae Park enrolled at Ball State University and as he worked towards his degree he continued to teach at his judo school. Upon the completion of his degree he was invited to become a member of the faculty in the School of Physical Education and Athletics at Ball State with a primary responsibility for the development and teaching of courses in judo. His high level of competence, exceptional rapport with students, and enthusiasm for teaching and the sport of judo made him and his courses immediate successes. About two years ago, Jae and I developed what we have been informed was the first college level course in Team Handball in the United States. We have worked together continuously and have become close professional colleagues ever since that first day when he entered my office back in 1965.

Mr. Park's fiancé came to the United States after his appointment to our staff and shortly thereafter, they were married. Our two families now enjoy close social lives. Jae and I consider ourselves as being members of the same social and professional family.

In the spring of 1970 the Parks, not having seen their Korean families or friends for a number of years decided that they would return to their native home for a visit. They invited the Korsgaard family to accompany them and we eagerly accepted the invitation. We did, however, conclude that we would include a visit to Japan as part of our tour. We arranged our departure date for July 24 and began to make our preparations.

THE GERMINATION OF AN IDEA (Park)

Taegu College was a small college located approximately 200 miles south of Seoul, capital city of Korea. During college days I became increasingly concerned with student affairs and people. My senior year I was the Chairman of the Athletic Committee of the Student's Organization. One of my interests was to develop better relationships with other people. I have enjoyed some success in my efforts to establish different organizations and through these and their activities, we have tried to bring harmony among people. I believe there are countless misunderstandings among people that create conflicts, not only among people, but nations and the world, as well. I was convinced that learning and experiencing cultural, social, and educational differences of other countries would result in beneficial knowledge to all people, and through those experiences we will be able to develop a strong bridge for international good will and friendship.

December, 1963 I was able to come to the United States to attend Kansas State Teachers College through the sponsorship of an American family whom I never knew before. The first few months, after I arrived in the United States, I felt as though I was constantly sitting on needles. I was tense and never felt relaxed. One of the worst things was that I could not differentiate one person from another because everybody looked alike to me! Learning and experiencing new cultures, customs, and language, and adjusting myself into a new environment weren't always enjoyable. You cannot neglect or ignore feelings of rising tensions and emotional dissatisfaction due to the many unfamiliar customs and especially, the language difference.

One evening I was invited to the college judo club and had a wonderful workout with members of the club. After the practice session I found myself with several American students enjoying a cup of coffee. My first real bond of fellowship and friendship had been established. By the end of the first semester I felt my five senses were functioning a little better than before.

The experiences and knowledges I have gained from this country seem unlimited. I know it would be impossible to obtain such knowledges and experience from one's own country.

The second year my self-confidence had been somewhat restored and resulted in a desire to travel across the country. During my travels I met numerous people and made the opportunity to discuss the feasibility of inviting the Korean National Judo team to this country. My efforts were successful and so I invited a twelve man Korean National Judo team to give exhibitions in the United States. When the team arrived I served as the tour coordinator as we traveled thousands of miles across the country. We met a variety of people, lived with host families, exchanged friendship, shared our different cultures, customs, and language. After a month and a half of traveling and exhibiting, the team returned to Korea. The responses I received from members of the team and host families were tremendous. It was a most satisfying and rewarding experience for me.

I now decided that I would move to Muncie, Indiana in order to attend graduate school in physical education at Ball State University. Still desiring to cement relations between my two countries I discussed the idea of establishing a sister-institution arrangement between my Korean undergraduate college and Ball State with Ball State's Foreign Student Advisor. I also wrote to a former Korean professor of mine, Professor Hee Won Song and sought his concurrence with the idea. Both parties were interested and so I concluded that they would now proceed with the necessary arrangements. I had opened the door for the two institutions to negotiate and I could now direct my energies towards my graduate studies. Since Ball State has one of the toughest physical education departments I had difficulty to find time to share with other matters other than my studies. My best friend, who was now my teacher in a graduate class, Dr. Korsgaard, even gave me a final grade of "C"! So, you can tell how hard this department is. I had to spend most of my time in my efforts to complete my degree. To my disappointment, I learned later that no progress had been made towards fulfilling my idea of establishing sister institutions. However, my efforts regarding my graduate work had been rewarded when in August 1968 I graduated from Ball State with my Master's degree and then became an instructor of physical education.

In 1969 I learned that Taegu College had merged with another college and had become Yeungnam University which was now one of the largest private colleges in Asia. I again contacted Professor Song to find out if they were still interested in affiliation. Professor Song replied and said that he felt much encouraged about the idea and held high hopes that Yeungnam would be favorably disposed to seek a sister institution in the United States. Knowing of Dr. Korsgaard's interest in international affairs, I approached him with my idea of affiliation and solicited his cooperation. He agreed to explore the possibilities with me. After my previous experiences which taught me that one could not rely on others to follow through on my ideas, I knew that I had to pursue, prod, stimulate and constantly follow through each step of the way. I would be obliged to keep close contact with my two liaison professors.

SECURING BALL STATE'S SANCTION (Korsgaard)

Recognizing that two physical educators do not bilaterally affiliate their institutions, it was agreed that I should make the necessary preparatory steps with the proper Ball State authorities. Our immediate chain of command dictated that I first contact our Dean of the College of Fine and Applied Arts. I presented our proposal to him and found him to be receptive. As our discussion progressed, I was dismayed to learn that both of us were quite uninformed on the subject. Fortunately another Dean had at one time arranged an affiliation with a Brazilian University and Ball State. We sought his counsel. "What did 'affiliation' mean?" 'What was involved?" "What commitments were indicated?" "Who would be responsible and what were the responsibilities?" These, and other questions were explored. Our consultant, the Dean of Science and Humanities was encouraging but responses were somewhat nebulous. Apparently, we concluded, there were no set administrative procedures, protocol, or programs that could serve as a model. In essence, sister institutions could make of their relationship whatever they wanted to and they could be united in whatever fashion they found mutually agreeable. The Dean summed it up by reflecting that, "You can make it anything you want to make of it and do whatever you can."

However, a positive attitude pervaded and we felt encouraged to proceed. We surmised that at worst, affiliation would probably do no harm, as a minimum it might serve as a gesture of good will and friendship, and, desirably, much good might come out [illegible] the arrangement.

The next rung of the ladder we had to climb was to secure the sanction of The President of the University. This step was frustrated in as much as he was out of town and would be unavailable for an indefinite period of time. Despite this handicap the Dean decided he would assume the authority for the University and sanction the venture We would proceed.

It was now time to address ourselves to some specifics that might be suggested to our intended sister institution. We conceived that there could be student and faculty exchanges; seminars, symposiums, and workshops; exchanges of publications, research findings, and educational theories, experiments, and programs; and, visitations with cultural and social emphasis by students, faculty, administrators, and alumni. Perhaps our intended sister institution would have further suggestions to make.

Protocol was the next consideration. Previous experiences had taught us that people from foreign lands place great stock in protocol. Invariably the prosentation of gifts and symbols were included in a ceremonial setting. Jae Park had assured us that our Korean hosts would honor us with appropriate gifts and symbols. Ball State, no doubt, would be obliged to be able to return in kind. The Dean assured us that the University was woefully inadequately prepared to give us some gifts and symbols in commemoration of the occasion. There were **no** supplies of such and, he cheerfully added, there would be no funds available for us to purchase anything! Somewhat dismayed, but not totally daunted, we turned our "think tanks" on and came up with a flash! We would seek assistance from the Alumni Office. An immediate telephone call resulted in instant success. They provided us with several copies of a book on the history of Ball State and a number of "President's Club" medallions (the type fund raisers strike to award contributors of monies to the University). These were gratefully accepted and assured us that we did not have to go to Yeungnam University empty handed.

The conference with the Dean was concluded and we departed quite encouraged by his support even though it did not include financial aid. Upon our return to the gymnasium, we persuaded our colleague, the Chairman of the School of Physical Education and Athletics to provide us with some petty cash with which to purchase a few Ball State pennants. Our athletic Director gave us several Athletic Honor Award medallions. Mr. Park and Mrs. Korsgaard and I purchased several souvenirs to serve as personal gifts from us. We also secured a number of University catalogues, brochures, and leaflets to complete our collection. We were somewhat restricted and had to be ever mindful that we would be limited to 44 pounds of luggage on our flight and our "loot" did represent considerable bulk as well as weight. Although not everything we were to take with us was exactly appropriate or designed for the occasion, they would have to do. The three Ball State delegates, Mrs. Korsgaard of the Women's Physical Education Department and Mr. Park and Dr. Korsgaard "had gifts, would travel!"

SECURING YEUNGNAM'S SANCTION (Park)

Having kept in constant contact with Dr. Korsgaard and being apprised of Ball State's interest and progress, I again contacted Professor Song to apprise him and to find out about developments in Korea. Much correspondence crossed the Pacific for several weeks and up until the day we had completed our plans. Yeungnam was still receptive but would await my arrival before completing their plans.

July, 1970 we are on the way to Korea. The Korsgaards remained in Japan while I continued on to Korea and immediately began a series of meetings with officials of Yeungnam, Taegu city officials, friends, and family. For the first several days I didn't even have a time to stay home for a happy and much wanted reunion with my family. Several meetings and much time was spent with Yeungnam officials during which we discussed how to arrange the affiliation ceremonies and to provide a schedule of activities for Dr. and Mrs. Korsgaard. Our Korean friends and colleagues enthusiastically extended so many invitations to us that we couldn't possibly accept all of them. At last, they were satisfied that the tentative arrangements for the ceremonies and schedule of following activities were complete and we now but to await the arrival of the Korsgaards.

THE AFFILIATION (Korsgaard)

After an enjoyable and enlightening ten day sojourn in Japan, Mrs. Korsgaard and I flew from Tokyo to Seoul, Korea where we were met by Jae Park and a Korean friend from Indianapolis. The four of us entrained for Taegu and upon our arrival at the railroad depot we were amazed and flattered to be met by a large and enthusiastic welcoming delegation! Bouquets of flowers were presented to my wife and myself, introductions and welcoming speeches were delivered. We were warmly welcomed by the Dean of Faculties of Yeungnam and several professors, a delegation from the Korean Judo Association, city officials, and friends and relatives of Mr. and Mrs. Park. It was a most impressive reception!

The brief greeting over, the entourage motored to the hotel in which we were to stay. An exquisite suite had been reserved for us and as refreshments were being served, a select group of delegates who had not had the opportunity at the railroad depot, bade us welcome and really made us feel glad that we had made the effort to come to Korea. As our guests left that evening, we knew we were quickly developing an affection towards our new Korean friends and that international relations, as far as we were concerned, had made progress.

The next morning we were chauffeured to the office of the President of Yeungnam University where we were introduced to the affiliation representatives; Deans, administrative heads, program directors, several faculty, the president of the student association, a reporter for the student newspaper and a campus photographer. Social amenities were attended to and refreshments were served. Finally it was announced that we would get on with the affiliation ceremonies. Jae Park and a Yeungnam professor of English and Linguistics served as interpreters since we did not understand Korean and most of them did not have a command of English. Brief speeches were made in which both parties presented their version of what affiliation would mean to them. Speeches were followed by a question and answer session. Although neither party was disposed to make irrevocable commitments, the suggestions that we had compiled during our conference with the Dean of our College were well received and mutual understandings were evident. Gifts were exchanged and it was obvious that Yeungnam was indeed prepared with suitable and appropriate momentos of the occasion. We were presented with a beautiful plaque, banners, wall hangings, rubbings, some bound volumes of faculty thesis, and copies of their English language student newspaper. Before the meeting had adjourned, we were presented with copies of the photographs taken of the ceremonies. When the formalities had been concluded it was suggested that all of us could now relax and enjoy ourselves as, not merely professional colleagues, but as social friends. All of us took advantage of this more informal climate and I'm sure we were all delighted to learn that "these others" were warm, friendly and social beings. The contrast between the formal and stiff ceremonies and the relaxed social session was remarkable. It was a memorable occasion for all of us and our many hours of work and preparation had reached its climax—Ball State and Yeungnam Universities were now officially, at least as far as Yeungnam was concerned, sister institutions. The final conclusion would not come about until after we had returned to Ball State and present it with its opportunity to acknowledge the relationship.

The ceremonies and social hour lasted about an hour and a half after which the entire group departed for Taegu's finest restaurant where a Korean banquet was served. It was truly Korean style. We sat crossed legged on the floor at a table which was about twelve inches high. The menu consisted of bulgogi (marinated beef), shrimp or prawns, raw and cooked fish, octopus, kimchi, several vegetable and condiments, and other dishes which defied my identification, and Korean beer. It was a gourmet's delight! The banquet was a traditional Korean feast with but one exception—a lady, in the person of Mrs. Korsgaard, was in attendance. Women are not ordinarily included in such functions. They either haven't heard of, or are not in sympathy with, women's lib in Korea! However, she proceeded to charm our hosts and they graciously accepted her presence. Unlike most American banquets, this was a most jolly affair from beginning to end. Jokes were told, bantering and teasing of each other and us went on, moments of serious conversations were enjoyed, and of course, much consuming of some of the most delicious food I've ever enjoyed.

You may be interested in an Oriental custom in which one expresses his sincere good fellowship and friendship by drinking his glass of beer and then handing it to you. You hold the glass and he fills it and then you drink the beer from his glass. You, in return, hand him your glass, fill it with beer and he drinks out of your glass. In all likelihood your original glass will never be returned to you since you keep exchanging glasses frequently with others. They chuckled in glee when I immediately exchanged my glass with one of them and, with much hilarity, I was completely accepted. Parenthitical note to health educators; one but hopes that none of us had a communicable disease, but if we did, the alcohol in the beer would do its job.

The banquet concluded with a sense of well being (gastronomically and socially) among all and the affiliation was finalized. It was a morning and early afternoon well-spent and our principle task had been completed.

After bidding our new friends and colleagues adieu, we were chaufeurred back to our hotel where we were to be privileged to rest for about an hour after which we were to attend a classical Korean dance concert. Within fifteen minutes of our arrival there was a rap on our door. Upon opening it we saw two Korean gentlemen whom we had met previously standing there grinning and indicating that they had come to pay a social call. They were concerned lest we had become lonely and felt neglected! We were hardly ever to be permitted to have very many moments to ourselves from that moment until we left Korea. We were smothered with kindness, consideration, and good will.

SOCIAL-CULTURAL-EDUCATIONAL PHASE (Park)

Our afternoon itinerary began a three day escorted and chaufeurred tour. Professor Song was our guide throughout. Our first treat was a concert of classical Korean dance which had our party as its sole audience! Dancers, all girls, ranged in age from about five years of age to mid-twenties and gave a remarkable and professional performance. From there we went to the campus of Yeungnam University demonstrated Korean wrestling. The next morning a team handball demonstration by high school and college stars and then two day visit to see some historical landmarks of Suk kul am Temple of the Sila dynasty. Our return to Taegu terminated our University sponsored tours but another schedule awaited us. We rode the Greyhound Bus to Korea's second largest city, Pusan, where we swam in the Sea of Japan, enjoyed a hot spring public bath, and met with physical educators and other professors from Dong-Ah University and Pusan National University. Whether with our Yeungnam colleagues or those from other universities we found ourselves constantly discussing and interpreting American and Ball State physical education as well as learning of developments in Korean physical education. We are proud to report that although Yeungnam had once applied for permission to offer a physical education major and was denied it, it has since gained the necessary approval and we like to think that we played a small part in influencing those in authority to support the program.

One evening in Pusan we dined with a young professor from Pusan who had recently returned from his doctoral studies in the United States. Another evening we were entertained by three pretty professional dancers and singers who danced, sang and played the musical instrument, "KayaKum". Upon our return to Taegu the Korean Judo Association honored us with a party of welcoming and friendship. Dr. and Mrs. Korsgaard attended the cinema with one of their newfound friends, strolled by themselves, and on several occasions dined and socialized with a number of people. One of our final affairs in Taegu included a "cocktail" party (beer was the only drink served) in our honor given by my fraternity brothers.

After a few days on our own with my folks and fraternity brothers we departed for Seoul where we planned to spend a quiet couple of days with our families. But, it didn't work out that way. When we got to Seoul, a fraternity brother, Mr. Shu, the assistant to the Vice Minister of Science and Technology for the Republic of Korea, was waiting for us with another schedule. We visited museums, markets, shops, and Kyung-Hee University, Bo-Sung High School, Ewha Women's College, the Taenung Training Center (Korea's amateur sports association facilities), a conference with the Vice Minister, and other spots too numerous to mention.

The last night we were to be in Korea I really made up my mind to spend our time on our own, walking and leaving our foot steps. I rejected accepting telephone calls and appointments. We were about to walk out the hotel door and—there we go again! This time officials and national coaches of the National Judo Association of Seoul were waiting for us in the lobby of the hotel! We had no choice but to leave our wives behind with family and friends while we were being kidnapped by that group! Soon we were surrounded by a dozen pretty girls and fine food, etc. Two of the girls were assigned to take care of our old man Korsgaard. It appeared to me that man liking woman is international understanding without explanations necessary! It was our final fling in Korea.

About four-fifths of my total visitation in Korea was spent in meeting people, visiting universities, touring, and attending parties but not much time for my family, for which I am most regretful. It was a severe sacrifice but many speeches had to be prepared, explanatory discussions were numerous, and our efforts to develop a better understanding and a stronger friendship between our two countries took much time and thought. At each University we presented them with a token gift and toured their campuses. I started to worry that the Korsgaards might run out of gifts to exchange since I knew them well and they don't want just to receive a gift without returning one. I need not have worried for I found them well prepared, not only with gifts, but also with fine spirits. A funny thing was everyone I met commented that Dr. and Mrs. Korsgaard were wonderful representatives of America but he did not look like a physical educator. I didn't want to either comment or understand what they meant by that.

August 20th, leaving all friends and relatives behind, we left Korea with many fond memories.

REPORTING TO BALL STATE (Korsgaard)

Shortly after our return to Muncie, oral and written reports of the affiliation were prepared and delivered to the President and Deans of the University. On the day preceding each term, Ball State conducts what is known as an "all day faculty meeting." We persuaded the President to permit us to arrange a suitable ceremony which would be staged in our auditorium in order to consumate the affiliation of Yeungnam and Ball State before an audience of the entire Ball State faculty. Jae, Mrs. Korsgaard and I presented the official documents and the various gifts that we had been asked to take back with us from Korea, to our President and other administrative officers. Everyone seemed most pleased, not only with the ceremony and gifts, but about the affiliation itself. It was indeed a proud moment for we three delegates. Mission accomplished!

For the next several days the three of us walked the campus to various offices in our role of missionaries and delivered about two dozen banners to selected persons. Most recipients were impressed and pleased and if you visit our campus today you will note a distinct oriental influence! However, even after this we knew that all that we had done were but preliminaries. Now we must address ourselves to seeing that some of the programs and ideas would be implemented and the affiliation become a viable one.

ACCOMPLISHMENTS AND PROGRESS (Park)

After our report to Ball State I have kept busy corresponding with Yeungnam University about what we have been doing. We arranged for Dr. Yu, the Dean of Faculties of Yeungnam, who had been at Princeton University during the academic year, to visit our campus. (We knew of his plans to be at Princeton while we were still in Korea.) On March 10th, 1971 he arrived and anxious to discuss the strengthening of our relationship. Ball State welcomed him as its guest and we had arranged an opportunity for him to have several conferences with the President, deans of colleges, and other officials of the University. Knowing that he didn't have a strong belief in, or knowledge about physical education, I requested the office of the President to include a visit to the Men's and Women's Physical Education Departments on his schedule. We impressed him and so did the entire University and he remarked that he would like to see Yeungnam's Physical Education Department mature and improve. We felt as though we had scored for physical education.

We now set about the task of inviting the President of Yeungnam University to our campus. It was not a simple task. However on May 29th, 1971 President and Mrs. Lee arrived for a visit of several day's duration as Ball State's honored guest. I should add that for several months Dr. Korsgaard and I worked diligently with University officials trying to persuade them to award an honorary doctorate to President Lee. We had fine cooperation from the Chairman of our History Department, the Dean of the Graduate School, the President's assistants and the President himself. Again we scored when we received word that the Board of Trustees approved of the degree! He received his degree and sat on the stage with other dignitaries during our commencement exercises and we knew that relationships had been bonded yet deeper and faster. During his stay he was entertained at the home of Dr. and Mrs. Korsgaard in a typical Memorial Day American style picnic lunch, a visit to a typical American farm, a tour of the campus and a number of conferences with appropriate University officials. We again, made sure that he visited our School of Physical Education and Athletics and again gifts were exchanged. At a reception given in his honor by the History Department, we were pleased to see many University officials, faculty, friends of the University, Board members and the Mayor of Muncie. The interest shown by all in the affiliation of our two Universities was most gratifying. At the evening Commencement Banquet, to which Dr. Lee, the Korsgaards and I were invited, Dr. Lee made a brief address and expressed his pleasure at our unification and his appreciation for the contribution the three delegates had made. I, as usual served as the interpreter for this, as well as the other meetings and conferences.

Dr. John Reno, Chairman of the School of Physical Education and Athletics had been persuaded to extend an invitation to Professor Song to come to Ball State as a visiting professor during the summer of 1971. On June 18, 1971 he arrived and during his stay he visited classes, participated in different activities, engaged in several activities, and conducted a workshop in Team Handball. Dr. and Mrs. Korsgaard provided him with room and board as their guest for more than a month during which they took him to Chicago, toured Indiana, treated him as a member of their family, and Mrs. Korsgaard tutored him in the English language. Our colleagues in the School of Physical Education and Athletics collected several boxes of physical education books for him and for Yeungnam's library. Our School held a reception and our faculty welcomed him. Even though he was limited in his ability to communicate in English with other people we attempted to provide him with all sorts of opportunities to meet students, faculty, and friends. We definitely exposed him to American sports and physical education. He made a fine impression on everyone he met and left many good memories with our faculty. We like to think he gained much knowledge from us. We know he learned much about the United States.

August 5th, The Dean of the Graduate School called a meeting to explore and develop cooperative arrangements between the two institutions. The assistant to the president, the vice-president and dean of faculties, and five college deans and I were at the meeting. The first part was devoted to a color slide presentation by me and this included a Korean map, the facilities and campus scenes of Yeungnam University. This was followed by a discussion of Yeungnam including its programs of study, yearly calendar, etc. Several topics, including student-faculty exchanges, study materials, and the establishment of an overseas program and summer field study program were discussed. At the conclusion of the meeting it was agreed that the first cooperative venture which should be considered would be a five-weeks academic summer field study by Ball State students at Yeungnam University. The title would be, "History and Culture of the Orient" and would carry both undergraduate and graduate credit. The History Department is sponsoring this field study and is planning to offer the class this coming summer. The future looks bright!

I sent a report of the meeting and the summer field study proposal to Yeungnam and they replied and indicated that they are happy to accept our plan. The following assistance was offered to Ball State:

1) They would like to provide free board and room for our group.
2) University busses would be provided for transportation needs.
3) Several students from China and Japan would be invited to participate.
4) A faculty committee would be formed to assist and coordinate.
5) An opportunity to visit Korean families and visit historical land marks including PanMunJum, governmental institutions, classical concert performances, and visits to other important places. The group may have an opportunity of meeting the President of the Republic of Korea.
6) Dr. and Mrs. Pruis (Ball State's president) have been invited to attend a conference on the unification of Korea which is to be sponsored by Yeungnam University.

In conclusion I would add that throughout the hundreds of meetings and discussions we attended during the establishment and functioning of the sister universities, we met many, many people of all levels. There were many blocks to our progress and much frustration. Personal sacrifices of many sorts were made but these are unavoidable. However, we are proud and happy that we were a part of the affair and share in the accomplishments. Four physical educators, Professor Hee Won Song of Korea, Dr. and Mrs. Korsgaard and Sung Jae Park of Ball State stretched their hands across the seas and laid the foundation for the sisterhood of two universities and perhaps also strengthened the bonds of friendship between two nations.

INTERCOLLEGIATE ATHLETICS

The Sensuous Sportsman: An Interpretation of Athletics

LAWRENCE MEREDITH
University of the Pacific

SPORT AS COMMON

Aristotle does not mention sport. Now few people have been devastated by this omission, but Aristotle was recognized in Greece as "the master of those who know," did manage considerable reflection on logic, physics, biology, politics, ethics, psychology, economics, did manage credit for establishing most of the categories of serious Western thought. And his slight of sport occurs within the very culture which gave birth to the Olympic Games.

The omission is at least surprising—so much so that Paul Weiss, Sterling Professor of Philosophy at Yale, wrote a book-length inquiry into the nature of sport as a kind of amends to the master. Weiss understands the problem as simply Grecian elitism:

> Aristotle extracted a grammar from learned discourse, a logic from skilled argument, and a political theory from the practices of statesmen. But he kept away from common discourse, common argument, and common practices.[1]

The history of philosophy, he concludes, is a "series of attempts to square the circle with which the privileged confine themselves."[2] Philosophy neglects the life of ordinary men: their sweat, work, their common religious ritual—even their song and dance. In short, what lures and grips the uneducated. Condescension towards the unwashed started early.

Of course, as Weiss points out, the Greeks could have written a philosophy of sport, for only free men were allowed to participate in the athletic contests. But there must have been a nauseating suspicion that physical excellence was within reach of the lower castes, the slaves, and even women. Alciabides refused gymnastics not because he lacked strength and grace, but because he knew that some athletes were of low birth.

Organic to this disdain of commonality, but pushing beyond to a more conclusive reason for thinking man's neglect of sport, is an understanding of man's nature fully probed by Weiss, but implicit in his definition of sport itself. Sport uniquely focuses our attention on the body. Sport may use the mind as a vector providing direction and magnitude to the body, and man becomes man by imposing mind on body, beginning in attention and running on to commitment.[3] Man's uniqueness, on this view, is his mind, his capacity for consciousness (to be aware that he is aware): in Aristotle's famous phrase, "a reasoning animal."[4]

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[1] Paul Weiss, **Sport, A Philosophic Inquiry**. (Carbondale and Edwardsville: Southern Illinois University Press, 1969), p.6.

[2] **Ibid.**

[3] **Ibid.**, p. 41

[4] Cf. Aristotle, **Nicomachean Ethics** (Indianapolis and New York: The Bobbs-Merrill Company, 1962), p. 17

Athletics, however, limit this humanizing process of the reasoning vector driving us into the future of high consciousness and redirect man's attention onto his body. As Weiss puts it: "The athlete comes to accept his body as himself."[5]

Is this a fault? Has Weiss discovered the flaw that explains the thinkers' neglect, the disdain of intellegentsia? The perspective summarizes the frustration of intellectuals everywhere: these athletes are animals, not men. Let us hold for a moment the final judgment of this cliche.

SPORT AS SPECTACLE

If the fact of commonality tempts the ancient intellectual to condescension, that same fact enables sport to become the spectacle of modern patriotism. John Lahr's brilliant essay in **Evergreen** (Nov., 1969) carries the thesis that sports have become "America's right-wing theater."[6] Sport affirms the status quo by converting the very processes which dehumanize man into play. Sport in our society is the last stronghold of comfort and reassurance that all is well; it is the grand distraction, the tableau of affluence that keeps the populace obedient to the demands of the state by disciplining its discontent into spectacle. Sport stages thrills without essentially challenging structures of power: it asks no questions either of the performers or the viewers, but simply unfolds external action.

Lahr reminds us that spectacle as medieval pageant had exactly this function in the Church. It celebrated orthodoxy as community activity. It was at once escape and education into conservatism—and surpassed by design the homilies to preserve the faith.

> The process of man's life was not as important as the reassuring iconography which surrounded it. The groupings, gestures, symbols in spectacle had an orthodoxy that the words did not. The spectacle incarnated the medieval mentality, communicating in sculptural, vivid images to non-literate medieval minds. The simple images made a profound sense of a confusing world. The people witnessing the spectacle were intimately involved with those performing it. They were seeing the Divine in themselves and themselves in the Divine. The effect was to create a political as well as spiritual unity: "The crowd assembled for the great festivals, felt itself to be a living whole, and became the mystical body of Christ, its soul passing into his Soul." (J. Huisinga, **The Waning of the Middle Ages**) (New York: Doubleday and Company, 1954), p. 147[7]

It is therefore of considerable interest that our sports events begin with the national anthem. Within the event itself there may be considerable freedom, even creativity. But sport, by definition, takes place within limits, and proceeds by obedience to rules. Sport is law and order incarnate where all felonies, as Bill Bradley puts it, must be subtle—consonant with the relative ferocity of the contest. The sports spectacle is a visceral metaphor of our national culture: institutionalizing conformity and submission to authority. One understands the jets over the Orange Bowl, the voice of the clergyman comparing life to a football game, the White House calls to victorious coaches, the full brass battle hymn of the republic, and N.F.L. playoffs on Christmas Day.

What is common to America is exploding technology and loss of individual power, aggressive capitalism and loss of existential meaning, promiscuous eroticism and loss of personal love. Sport creates instant order out of these troubled times, restores the illusion of primitive power, ameliorates aggression by providing professional violence, and parades computerized bodies under the guise of games. Writes Lahr:

> Baseball is a spectacle of America's early industrialization. Football is the daydream of a passive, computerized society, melding violence with elaborate efficiency. They are both epic struggles which have their real-life consummation in the astronauts, the game of the technological present.[8]

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[5] Weiss, **Op. Cit.**, p. 41

[6] **Evergreen**, November, 1969, p. 39

[7] **Ibid.**, p. 40

[8] **Ibid.**, p. 41

This technological present is in fact becoming whatever we can be by the multiplicity of our powers under the aegis of national purpose.

Chuck Mills of Utah State is a script writer for this right-wing theater. After a dismal season in 1969, anxious over increasing radicalism of students, he found a way, so he thought, to impress on his team the privilege it was to receive an education through the sport of football—designing a red, white, and blue American decal for each Aggie helmet. **Sports Illustrated** reported his locker room oration:

> This decal means football is the great American game. It is a game where you sacrifice, respect each other and yourself, work together regardless of backgrounds and political, social or religious beliefs for a common goal; suffer, cry, laugh, wonder . . . together. Football is a microform of the American Adventure.[9]

Here the phenomenon of sport as chauvinistic conjoins the phenomenon of sport as an anti-intellectual. Radical man thinks. He is skeptical in the Greek sense of "looking carefully about." God and sport become partners because G-O-D as symbol comes to mean Establishment. Satan as Anti-Christ biblically means anarchy, the antithesis of G-O-D: order. Creation is always out of chaos, as the nation is always union. God and Country are synonymous in sport because **sport is an invented limit to test one's identity by gross and discrete, competitive, motor movement**.

Skepticism and inquiry both are lethal to sport as a spectacle of reassurance because skepticism insists that the identity tested by bodily encounter be free to disengage from the encounter, and inquiry requires reflection on the nature and effects of the encounter. It would seem then that Aristotle was correct in his omission. And that the Athenian citizens were acting on solid sense when they asked Socrates out of their city for corrupting the youth. Thinking men—probing, inquiring, careful, free men—are impossibly dangerous. As governors, generals, coaches, one wants instant obedience rather than inconvenient questions. One wants repression and totalitarian discipline, not creativity and imagination. Civilization, said Freud, must have its discontents. General Patton's staccato steps before the monstrous, mythical flag is the exact model of coaching in our time. Ideas must be suppressed for they may make war on war, just as thought may make sport of sport. This is the legitimate fear of every Dee Andros archetype in the country.

Bruce Ogilvie's ten years of psychological research with 27 professional teams in basketball, football, golf, and ice hockey, not to mention 15,000 college and high school athletes in every major sport, reveal an astonishing 99 percentile personality assessment that sport thrives on repression and prolongs adolescence. "If You Want to Build Character, Try Something Else" is the title for his report to **Psychology Today**.[10] Achievement in sport, he finds, requires control, not character; endurance, dominance, and drive, not trust, conscience, and tenderness.[11] There is, in psychiatrist Arnold Beissen's phrase, "a madness in sport."[12]

Was Aristotle wise?

SPORT AS ART

It is time now to return to the cliche that athletes are animals-sub-human anthropoids, hard-hat red, white, and blue beasts. Weiss corrects this sterotype: "Athletes are excellence in the guise of men."[13] Sport, then, is the art of excellence, designed exclusively for the young to test potential, to push out the limits of endurance, strength, accuracy, coordination, speed, flexibility and judgment.

Why is it that sport does not build character and is treated so rudely by scholarly tradition?

There is a missing dimension to the definition of sport, or rather, a dimension not fully realized. It transforms the whole of sport and it reveals a fatal truncation of

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[9] **Sports Illustrated**, November 2, 1970, p. 13

[10] Bruce C. Ogilvie and Thomas A. Tutko, "Sport: If You Want to Build Character, Try Something Else," **Psychology Today**, October, 1971, pp. 61-63.

[11] **Ibid**., p. 63

[12] See Arnold R. Beissen, **The Madness in Sport** (New York: Appleton-Century Crofts, 1967).

[13] Weiss, **Op. Cit**., p. 17.

Greek philosophy itself, and a diminution of the nature of man. It is, in fact, at the heart of the radical protest of our revolutionary time, the cathexis of all the movements of America's incadescent sixties: civil rights, student rights, hippie withdrawal and street celebration, black, brown, and bleak power; female liberation.

It is this. Man is not uniquely defined as that animal capable of reason. He is that animal capable of ecstasy. His capacity for consciousness is his sense of awe, his rebirth of wonder, transmuting his sensuality shared with all the other animals into sensuousness. Being a sensuous man has little to do with exercises for the libido, licking ice cream cones in preparation for oral sex, or perfecting your "J" stroke for tonight's scheduled orgy. Sensuousness is the art of pleasure through contact with form. The nature of sensuousness is not dominance, or manipulation, but receptivity and openness. The world is reshaped, not conquered, and we experience that new shape not as winners, but as participants in form, as sentient bodies in increasing humanhood. Gabriel Marcel's epigram is almost liturgical: "I do not make use of my body, I am my body."[14]

The vague, tenuous phrase, "the movement," used by widely disparate leaders to indicate the dynamic of the counter-culture (from Carl Oglesby to Timothy Leary), symbolizes an unrest thrusting forward into new openness, a testing of the limits of humanness within the invented rules of civilized life. The anarchy of the streets, the protest nudity, the militant demands, the paroxym of dance and rapine sounds, the confrontations of law, and the satire of order, the harrowing trips into inner space—all point to these new possibilities, excellencies undreamed, bodies finally alive again: I got my toes, my eyes, my tits, my hair, I got life, the youth of the sixties sang. And this life must be now: freedom—now. The grand cliche caught something real, for the "now generation" opens on to immediate ecstasy over against what Philip Slater calls "the postponed life."[15]

SPORT AS PLAY

Slater's analysis of our contemporary situation, **The Pursuit of Loneliness**, is subtitled, "America's Culture at the Breaking Point." The point to which he refers is that moment in our history when we pass from the need for competition to the privilege of communal living. Competition, he says, is based on scarcity. When there is not enough food, we fight to eat, and we develop restraint of our appetites to encourage survival. As the culture proceeds into survival mentality, it develops symbols to insure that survival. Hard work becomes not just a means of production but a symbol defining our manhood. **Men** work. Not to work not only fails to fill our table, it fails to fill our souls—our self esteem.

But suppose a man's work becomes unnecessary? There is plenty provided by a few for the many. Men will not stop working because that is still how they define themselves. They are captive to a symbol, rather than released by a reality. So even though competition is not needed, they continue to compete: in games, in sport, in business, in war. We fight for a world that is already won, where fighting can only succeed in destroying our victory. This, says, Slater, is the **old culture**, and why we continue to "kill anything that moves" in Vietnam.

The **new culture** understands that survival is no longer the question, but the quality of survival—not filling, but fulfillment. This new culture is not based on scarcity assumptions, but communal possibilities. The heart of its mode of being is sharing. Its symbol is not work, but love, and the matrix for this love is nonpossession. This culture does not conquer the land, it lives with it, as part of it. It does not race the Russians to the moon; it embraces them on the earth. It does not have sports; it plays. And these antinomies are final. Between the old and new cultures there can be no compromise, for the critique that each makes of the other is radical.

Slater tells a long and fascinating parable illuminating the way the old culture passes into the new; from sport into play:

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[14] Gabriel Marcel, **Metaphysical Journal** (Chicago: Henry Regnery Co., 1952), p. 333.
[15] Philip Slater, **The Pursuit of Loneliness** (Boston: Beacon Press, 1970), Chapter Six, p. 119 f.

> Imagine, for example, that we are cooperation purists attempting to remove the invidious element from a foot race. We decide, first of all, that we will award no prize to the winner, or else prizes to everyone. This, we discover, bring no reduction in competitiveness. Spectators and participants alike are still preoccupied with who won and how fast he ran relative to someone else now or in the past. We then decide to eliminate even announcing the winner. To our dismay we discover that our efforts have generated some new cultural forms: the runners have taken to wearing more conspicuous identifying clothing—bright-colored trunks or shirts, or names emblazoned in iridescent letters-and underground printed programs have appeared with names, physical descriptions, and other information facilitating this identification. In despair we decide to have the runners run one at a time and we keep no time records. But now we find that the sale of stopwatches has become a booming enterprise, that the underground printed programs have expanded to include voluminous statistics on past time records of participants, and that private "timing services," comparable to the rating services of the television industry, have grown up to provide definitive and instantaneous results for spectators willing to pay a nominal sum (thus does artificial deprivation facilitate enterprise).
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> At this point we are obliged to eliminate the start and finish lines-an innovation which arouses angry protest from both spectators and participants, who have evinced only mild grumbling over our previous efforts. "What kind of a race can it be if people begin and end wherever they like? Who will be interested in it?" To mollify their complaints and combat dwindling attendance, we reintroduce the practice of having everyone run at the same time. Before long we observe that the runners have evolved the practice of all starting to run at about the same time (although we disallow beginning at the same place), and that all of the races are being run on the circular track. The races get longer and longer, and the underground printed programs now record statistics on how many laps were run by a given runner in a given race. All races have now become longevity contests, and one goes to them equipped with a picnic basket. The newer fields, in fact, do not have bleachers, but only tables at which drinks are served, with scattered observation windows through which the curious look from time to time and report to their tables the latest news on which runners are still going. Time passes, and we are increasingly subjected to newspaper attacks concerning the corrupt state into which our efforts have fallen. With great trepidation, and in the face of enormous opposition from the ideologically apathetic masses, we inaugurate a cultural revolution and make further drastic alterations in racing rules. Runners begin and end at a signal, but there is no track, merely an open field. A runner must change direction every thirty seconds, and if he runs parallel with another runner for more than fifteen seconds he is disqualified. At first attendance falls off badly, but after a time spectators become interested in how many runners can survive a thirty-minute race without being eliminated for a breach of these rules. Soon specific groups become so skilled at not running parallel that none of them are ever disqualified. In the meantime they begin to run a little more slowly and to elaborate intricate patterns of synchronizing their direction changes. The more gifted groups become virtuosi at moving parallel until the last split second and then diverging. The thirty-second rule becomes unnecessary as direction changes are voluntarily frequent, but the fifteen-second rule becomes a five-second one. The motions of the runners become more and more elegant, and a vast outpouring of books and articles descends from and upon the university (ever a dirty bird) to establish definitive distinctions between the race and the dance.[16]

The first half of the parable is really liberal reform as a kind of flexibility which still retains the old structures. Liberals always maintain themselves. All the rules changes still mean competition.

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[16] Ibid., pp. 101-102.

The second half is radical revolution, for now is introduced a new perception of the nature of things. Radicals always dig at the roots. They don't change rules—they eliminate the game itself.

Thus the Roman church was quite right to persecute and excommunicate Luther. The old church had its roots dug up and exposed when he challenged the entire sacramental system of authority. It was then either Luther or the Pope and no compromise was possible.

SPORT AS COMMUNION

We can now return to our thematic cliche that athletes are animals. This cultural revolution has now, in Ogilvie and Tutko's words, "penetrated the last stronghold of the American myth—the locker room."

> Young athletes, having scaled new levels of consciousness, now challenge a long-standing article of faith—the belief that competition has intrinsic value.[17]

Is this the apocalypse for sports, this jock crucified by chalk lines, this jock strap held up and burned like a draft card?

We know better. Institutionalized aggression will go on as long as there is money in it. Dehumanization is still profitable and when tied to our fantasy life of heroism and individual power, it is irresistible. We will steadily go on using contests as spectacle to celebrate our traditional values, rather than as "provision of opportunities to find out who is in relation to other men in a bounded situation."[18]

It could, of course be different. Sport may mean literally "to divert," but if athletes are excellence in the guise of men and if they begin to see their bodies as themselves, then why would it not be possible for sport to focus rather than to divert—to point to, and be, the cultural revolution, instead of reacting adolescently against it? Why should scarcity define sport? Is sport necessarily a win-lose model of behaviour?

Sport can be ecstasy, a theater of the new consciousness, a demonstration not of our brutality but of our gentleness. Charles Reich watched Berkeley students playing touch football in bellbottoms and observed that it was more like ballet than a contest. One thinks of Paul Newman as **The Hustler.** Shooting pool with ordinary players for fun money, diverting himself from the real contest with Minnesota Fats, he suddenly ran the entire table. Those ordinary men broke his hands for hustling them, but later he explained to his woman: they were so bad, so clumsy —he had to show them just how beautifully the game could be played, the infinite pleasure in receiving the form of beauty. Not for money. No, pool here became art and the hustler a sensuous sportsman.

Why should not beauty and creativity define sport? Eleanor Metheney reminds us that competition literally means "to strive with."[19] To complete here communicates not winning, but enhancing the beauty of the bounded situation, to push out the limits of creative facility, to share excellences.

Was Aristotle wise? No doubt. Men do think and sweat in common. But man's mind is his body given a new possibility. His mind shapes a future, invents meaning where there is none, and brings order out of chaos. So his hands throw up the Parthenon like a fist—an aesthetic finger to the forces of decomposition. So his feet fly around the track at Olympia, transcending death in movement and grace. So his loins and lips join the other and share liquid touch and the possibility of new life. Stone into art. Track into dance. Ecstasy into birth.

This is sport into communion: this is my body offered for many. And this is the place to end this interpretation of athletics, just before we are tempted to call Jesus the Athlete on the cross. Günter Grass' dwarf in **The Tin Drum** goes on to do exactly that:

> Athlete most amiable, I called him, athlete of athletes, world's champion hanger on the Cross by regulation nails. And never a twitch or a quiver. The perpetual light quivered, but he displayed perfect discipline and took the high-

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[17] Ogilvie and Tutko, **Op. Cit.**, p. 61

[18] Weiss, **Op Cit.**, p. 151.

[19] Eleanor Metheney, **Connontations of Movement in Sport and Dance** (Dubuque: William C. Brown Co., 1965), p. 40.

> est possible number of points. The stop watches ticked. His time was computed. In the sacristy the sexton's none-too-clean fingers were already polishing his gold medal. But Jesus didn't compete for the sake of honors. Faith came to me. I knelt down as best I could, made the sign of the cross on my drum, and tried to associate words like "blessed" or "afflicted" with Jesse Owens and Rudolf Harbig and last year's Olympic Games in Berlin.[20]

Of course, Grass is being ironic, not pious. The same Germany that gave birth to the radical freedom of the Reformation, brought forth Hitler's refusal to shake Jesse Owen's hand. Winning, after all, isn't everything, it's the only thing. Germany's victories and right-wing theater were to last a thousand years. They invented the Blitz and the Bomb. Community became the invincible **Volk**. The students stopped rioting in the streets and law and order were restored to the nation. Hitler did indeed bring the Germans together.

Sport may be the microform of the great national adventure. If the contest is between the old competitive culture and the new communal culture, the result seems sure. Love will be crucified, for love could not remain love and play to win. Love only plays to play. Love is not for some end. Love is. Love shares not in order to win over some opponent, but because sharing is love.

Sensuous sport, then, is love in a body under challenge designed to expand our unique human capacity for sensitive joy. Aristotle really should have mentioned it.[21]

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[20] Gunter Grass, **The Tin Drum** (Greenwich, Conn.: A Fawcett Crest Book, 1962) p. 131.

[21] Cf. Aristotle, **Politics** (Baltimore: Penguin Books, Inc., 1962), Book VIII, Chapters 4, 6 and 7. Aristotle here speaks about the relation of physical training to the character of education, but again not directly about sport. What he dislikes finally is not so much commonality, though this is present, but professionalism and the destructive role of competitive performance: "We reject then as education a training in material performance which is professional and competitive." (p. 312). Theater in Greece apparently occupied a role similar to sport in America: "In the theater there are two types of audience, the one consisting of well-educated gentlemen, the other of common persons, drawn from the menial occupations, paid workers and such-like. For the relaxation of this latter class also competitions and spectacles must be provided." (p. 314).

Machiavellianism Among College and High School Coaches

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INTRODUCTION

In recent years America's high school and college athletic coaches have been vigorously attacked by individuals from within and outside the field of education. These attacks have centered on the alleged ruthless methods that athletic coaches use in carrying out the tasks of coaching their teams. As American sports have developed, the role of the coach as the unquestioned authority in all matters pertaining to the team has become accepted. Not only is the coach the decision maker with regard to the teaching of skills and the implimentation of strategy and tactics, but he is also the authority on modes of dress, grooming, and social behavior. In essence, when an athlete commits himself to a sports team, he commits himself to the will of the coach of that team on all matters which the coach thinks are important.

While Americans have never looked with great favor upon obedience to authority, they have been willing for many years to accept the authority of athletic coaches, perhaps because this obedience is associated with will-to-win, self-discipline, self-denial for the good of the team, etc.—all highly esteemed virtues in the field of sport. But recent years have witnessed a questioning of authority throughout the broad spectrum of American society—from the family to the political-economic structure. If one accepts the notion that sport is a microcosm of the larger society, it is not surprising that social change, in this case the questioning of coaches' authority, would appear.

One method of discrediting the authority of a position is to question the credibility of the persons who fill this position. This can be done by questioning the technical skills of persons filling the position. Another method, and one which is particularly appropriate where the activity involves education and/or interpersonal relations, is to question the genuine personal empathy, sincerity, affection, and humanism those in the position have for others. The critics of America's coaches have rarely used the first method. That is, they have not attacked coaches' technical knowledge of the sport. Indeed, if they have had any criticism in this regard, it was about coaches' overemphasis of the technical aspects of sports. It is the second method that has primarily concerned the critics. They see the coach as one who is not concerned with persons, not concerned with the players as humans; they see coaches as concerned only with winning games and using athletes as pawns, or as means, to this end. Ogilvie has stated: "Traditionally, you're going to find in the coaching profession men who are. . . . more interested in power and manipulation and less interested in humanistic approaches. They prefer control, organization. unquestioned commitment to their philosophy and so on."[1] One of the most outspoken of the recent critics of American coaches is Jack Scott. He characterizes the college coach in this way: "The typical . . . coach is a soulless, back slapping, meticulously groomed team oriented efficiency expert—a jock's Robert MacNamara . . . Most coaches have as much concern for the welfare of their athletes as a general has for the soldiers he sends into battle . . . For most college coaches, the athlete is significant only to the extent that he can contribute to a team victory. . . . For every relaxed, understanding coach . . . there are one hundred rigid, authoritarian coaches who have so much . . . character armor that they rattle."[2]

Ogilvie and Scott are only two of the many critics who have attacked high school and college coaches in the recent years. Sports journalists have written extensively about them. In the past four years, **Sports Illustrated** has published two major series of articles dealing with athletic coaches.

The first series was entitled "The Black Athlete: A Shameful Story."[3] The second was entitled "The Desperate Coach."[4] Both series intimated that coaches personalities tended to be highly oriented toward interpersonal manipulation.

The allegations which have been made about the personality structure of athletic coaches by the various critics is conspicuous by its lack of documentation. Indeed, although many professional occupational groups have been studied in recent years, no one has systematically studied athletic coaches. The purpose of this study was to examine the interpersonal manipulation trait of high school and college athletic coaches.

Although questions about how and why human beings manipulate other human beings by guile, deceit, illegal power, immorality, etc., have interested scholars for many centuries, only in recent years have psychologists turned specifically to studying whether conniving, manipulating strategies do indeed exist as personality syndromes, and, if they do exist, whether they are validly measurable. Using the writings of Machiavelli (**The Prince** and **The Discourses**) as an example of manipulatory tactics. Richard Christie and his associates[5] have developed an instrument to evaluate opportunism, guile, and duplicity in interpersonal relations, and their laboratory research with this instrument indicates that the tendency to respond in certain ways to the instrument is reliably related to interpersonal behaviors. That is, subjects who endorse guile, the use of illegal power, opportunism, and duplicity in interpersonal relations tend to engage more often and more readily in exploitive behaviors, presumably in an effort to implement their own desired ends. Christie[6] refers to this general class of attitudes and related behaviors as "Machiavellianism." Geis, one of Christie's associates, has stated: "Machiavellianism is associated with emotional detachment in interpersonal relations, a tendency to exploit situations and others for self-gain, and a tendency to take over control in small groups."[7]

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[1] Bruce Ogilvie, Quoted from J. Jares, "We Have Neurotic in the Backfield Doctor," **Sports Illustrated**, Vol. 34 (January 18, 1971), p. 33.

[2] Jack Scott, **Athletics for Athletes** (Hayward, California: Quality Printing Service, 1969), p. 7.

[3] Jack Olsen, "The Black Athlete: A Shameful Story," **Sports Illustrated**, Vol. 30, (July 1, July 8, July 15, July 22, July 29, 1968).

[4] John Underwood, "The Desperate Coach," **Sports Illustrated**, Vol. 31 (August 25, 1969, September 1, September 8, 1969).

The Machiavellian (Mach) scale in its current form (Mach V) has gone through several revisions. The Mach V scale is composed of twenty triads of items which are statements, paraphrases, and reversals of statements from **The Prince** and **The Discourses** of Machiavelli. A variety of laboratory studies by Christie and others have demonstrated that the Mach V instrument is reliable and consistent, and more important, that persons who score high on the scale actually behave in a more Machiavellian manner than those who score low.

Basically a score on the Mach scale may be interpreted as representing the degree to which a respondent believes that people in general are manipulatable, that is, that interpersonal manipulation is possible. Machiavellianism reflects a tough-minded and relatively affectless view of other persons. Christie and Geis suggest that a high-Machiavellian view might be, "People are no damn good. So what? Take advantage of it." And they report that the statement of one high Mach was, "Win by any means."[8]

A series of laboratory studies have confirmed the value of the Mach scale for successfully predicting interpersonal manipulative behavior in a variety of situations. High Machs manipulate more, win more, are persuaded less, persuade others more, and differ significantly from low-Machs. The experimental evidence indicates that high-Machs are markedly less likely to become emotionally involved with other people, or with sensitive issues. They are cold, amoral, and possess a detached personal unresponsiveness and a covertly aggressive willingness and ability to manipulate others. High-Machs have a generally unflattering opinion of others and a cynical view of people in general. Low-Machs, on the other hand, are more inclined towards valuing affective involvement with others and tending to believe that interpersonal relations should be governed by strict humanist, or ethical, norms.

Laboratory studies of Machiavellianism have involved a wide variety of experimental conditions. These studies of the interaction of individuals and situational conditions has led Christie and Geis[9] to propose an "interaction model" to characterize situations in which high-Machs are likely to be found and in which they will be successful. They suggest that high-Machs will be found in situational conditions in which there is:

1) Face-to-face interaction
2) Latitude for improvisation
3) Irrelevant affect

Situations in which there is face-to-face interaction refers to conditions in which activities are carried on with all the participants within talking distance of one another. That is, personal relations are conducted directly rather than indirectly. Christie and Geis state that, "Latitude for improvisation indicates that the structure of the social interaction is open ended, not specifically predefined in terms of content or timing .... Improvisation implies both that subjects must improvise and that the improvisation can influence outcomes."[10] Most interpersonal situations involve some degree of affect, but situations in which affect may distract the person from concentrating on the operations which lead to success are situations in which high-Machs excel, since high-Machs tend not to invest affect in others.

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[5] Richard Christie and Florence L. Geis, **Studies in Machiavellianism** (New York: Academic Press, 1970).

[6] **Ibid**. pp 1-9.

[7] Florence L. Geis, "Machiavellianism in a Semireal World," **Proceedings of the 76th Annual Convention of the American Psychological Association**," Vol. 3, 1968, p. 407.

[8] Christie and Geis, op. **cit**. pp 38, 133.

[9] **Ibid**. pp. 285-294, 350-354.

Although no systematic attempt has been made to discover how Mach scores are related to various occupational groups, it seems possible that the choice of occupations and professions is related to Mach scores. A major problem of predicting occupational relationship and Mach scores, of course, is the need for a classification system for coding the relative variables in the "interaction model" for occupations. The few studies that are available "suggest that Strong Inventory scores related to feminine occupations are negatively correlated with Mach scores. In general professionals tend to score higher than businessmen who have similar numbers of years of education." Christie and Geis state: "We do not have representative samples of occupations but in general those unsystematic aggregates who have taken the Mach scales have scores consistent with our interpretation of the degree of structure imposed by the occupation."[11]

In applying the "interaction model" of relative degree of face-to-face contact, latitude for improvisation, and arousal of irrelevant affect to athletic coaching, it would appear that this occupation would attract persons who are high in Machiavellianism, since the situational conditions of coaching resemble the experimental situations in which high-Machs are more successful. Athletic coaching involves frequent face-to-face contact with players who are under the direction of the coach, and coaching generally involves a prolonged period of interpersonal interaction between the coach and his players. Furthermore, coaching permits rather wide latitude for improvisation. Although school coaches must conform to general school policy with regard to player treatment, and they must conform to game rules with regard to playing the sport, they are given broad latitude in teaching skills, strategies and tactics, and regulating the personal lives of their players. Certainly, methods of coaching vary widely. The third situational variable is the presence of irrelevant affect. Although affect is certainly an important aspect of athletics and coaches are seen as getting "emotional" for games, the critical question is whether this affect distracts the coach from concentrating on the operations of coaching which lead to success. Since standards of success in coaching are universally defined as winning, it would seem that someone attracted to the coaching occupation would not be likely to invest affect in others, since this could distract and interfere with effective pursuit of coaching goals—winning games.

Statements of criticism made in recent years about the behaviors of coaches suggests that they possess many of the traits of the high-Machiavellian. Statements that coaches are "more interested in power and manipulation," that they "prefer control and unquestioned commitment," that "for most coaches, the athlete is significant only to the extent that he can contribute to a team victory" characterize the high-Machiavellian.

We are led, then, to our first hypothesis, namely that high school and college coaches are characterized by high-Machiavellianism in comparison to a sample of male college students. More specifically the hypothesis is:

1-A. College athletic coaches will have a significantly higher Mach score than will a sample of male college students.

1-B. College football coaches will have a significantly higher Mach score than will a sample of male college students.

1-C. College track coaches will have a significantly higher Mach score than will a sample of male college students.

1-D. College basketball coaches will have a significantly higher Mach score than will a sample of male college students.

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[10] Ibid. p. 287.
[11] Ibid. p. 354.

1-E. High school football coaches will have a significantly higher Mach score than will a sample of male college students.

1-F. High school basketball coaches will have a significantly higher Mach score than will a sample of male college students.

Christie and Geis[12] found that agreement with Mach statements increases throughout adolescence, peaks around 20 years of age and shows a gradual decrease in scores among older respondents. Although the trend toward a gradual reduction in Mach scores with age may occur with a general population, the reverse would seem to be true for a population that fits the "interaction model." In the case of a single occupational group, if the interaction model accurately applied, it would appear that the most successful in that occupation, and the ones who were most strongly attracted to the situational conditions of that occupation would be selectively retained in that occupation.

Specifically, it is suggested that the Mach scores of coaches will increase with years of age, since many who are low in Machiavellianism will be screened out of the occupation and those who remain will increase their Machiavellianism due to the situational conditions associated with coaching. This leads to our second major hypothesis:

2-A. There will be a significant increase in Mach scores of college football coaches with years of age.

2-B. There will be a significant increase in Mach scores of college track coaches with years of age.

2-C. There will be a significant increase in Mach scores of college basketball coaches with years of age.

2-D. There will be a significant increase in Mach scores of high school football coaches with years of age.

2-E. There will be a significant increase in Mach scores of high school basketball coaches with years of age.

Our third hypothesis is that Machiavellianism among college coaches increases with years in coaching. Specifically, the hypothesis is:

3-A. There will be a significant increase in Mach scores of college football coaches with years in coaching.

3-B. There will be a significant increase in Mach scores of college track coaches with years in coaching.

3-C. There will be a significant increase in Mach scores of college basketball coaches with years in coaching.

A variety of laboratory research findings show that high-Machs win more in individual competition and in competition with groups when the situational conditions meet the "interaction model." These findings suggest that coaches who are successful at winning games are probably high in Machiavellianism. This prediction is based on consistent findings that high-Machs are not distracted by emotional involvement with others or getting carried away with personal sympathies which could distract them from evaluating resources and allocating tasks for optimal efficiency.

Our fourth hypothesis, then, is that coaches who have attained winning records will be high in Machiavellianism. More specifically:

4-A. College football coaches with a won-loss record of over 60% will have significantly higher Mach scores than those with a won-loss record of under 60%.

4-B. College basketball coaches with a won-loss record of over 60% will have significantly higher Mach scores than those with a won-loss record of under 60%.

4-C. High school football coaches with a won-loss record of over 60% will have significantly higher Mach scores than those with a won-loss record of under 60%.

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[12] Richard Christie and Florence L. Geis, "Some Consequences of Taking Machiavelli Seriously," **Handbook of Personality Theory and Research**, eds. E. F. Borgatta and W. W. Lambert (Chicago: Rand McNally, 1968), pp. 959-973.

4-D. High school basketball coaches with a won-loss record of over 60% will have significantly higher Mach scores than those with won-loss record of under 60%.

METHOD

Subjects. The college coaches were randomly selected from the 1970-71 Official Collegiate Guides for Football, Basketball, and Track which are published by the National Collegiate Athletic Bureau. One-hundred and fifty coaches were selected from each of the Guides. The high school coaches were randomly selected from the 1970-71 Colorado High School Coaches Directory. One-hundred football coaches and the same number of basketball coaches were selected. The Mach score for the sample of male college students is taken from Christie and Geis and is reported to be from "students in 14 different colleges." The colleges represented, they state, "are probably very close in student characteristics to a representative sample of colleges."[13] The total sample of both male and female students was made up of 1782 respondents.

Procedures. Mach V scales and a self-addressed envelope were sent to all of the coaches who had been selected. A letter accompanied the Mach V scale to encourage the coaches to complete and return the scales. No mention was made about the purpose and nature of the Mach scale. After several weeks, follow-up letters were sent to the coaches who had not returned the scale. The initial letter and follow-up yielded the following completed and correctly marked Mach scales: College football 124, (83%); track 115, (77%); basketball 104 (69%); high school football 69, (69%); and high school basketball 84, (84%). The average age and years of head coaching experience for the various coaching groups were as follows: College football coaches, 41 years of age and 8 years of experience; College track coaches, 41 years of age and 10 years of experience; College basketball coaches, 39 years of age and 8 years of experience; High school football coaches, 32 years of age and 6 years of experience; High school basketball coaches, 32 years of age and 6 years of experience.

Coaches' responses to the Mach V scale were coded and computer cards for the respondents were punched. The computer cards were then processed by the IBM 360 model 30 computer in the University of Northern Colorado Computer Center for the statistical analyses.

Analyses of the data were performed through the use of Dunnett's "t" statistic, a method of comparing multiple means with a control, and analysis of variance simple randomized designs. Where significant F ratios were derived in the simple randomized designs, the Scheffe test of multiple comparisons was applied. The .10 level of significance was selected for the null hypothesis in all analyses in this study.

TABLE 1

YEARS OF AGE AND YEARS AS A HEAD COACH

Coaching Group	Number of Respondents	Years of Age (Mean)	Std. Dev.	Years as Head Coach (Mean)	Std. Dev.
College Football Coaches	124	41.19	7.25	7.54	6.21
College Track Coaches	115	40.61	10.19	9.52	7.96
College Basketball Coaches	104	39.42	7.41	3.11	7.00
High School Football Coaches	69	31.97	7.02	6.32	5.95
High School Basketball Coaches	84	32.01	6.40	6.12	5.60

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[13] Christie and Geis, **Studies in Machiavellianism**, pp. 32, 314

TABLE 2

COMPARISON OF COACHES MACH V SCORES WITH MALE COLLEGE STUDENT MACH V SCORES

Groups	Number	Mean	Std. Dev.	Dunnet "t" a
Male College Students	764	99.27	11.17	
College Football Coaches	124	98.14	7.42	0.04
College Track Coaches	115	97.26	7.16	0.06
College Basketball Coaches	104	97.65	7.86	0.05
High School Football Coaches	69	97.45	7.36	0.05
High School Basketball Coaches	84	97.22	8.67	0.06

^{a}t = 2.34 Critical value for significance at .10 level

RESULTS

Table 2 presents the numbers, means, and standard deviation on the Mach V scale for the sample of male college students which was reported by Christie and Geis.[14] This table also reports the numbers, means, and standard deviations on the Mach V level for college coaches of football, track, and basketball and for high school football and basketball coaches.

Dunnett has derived the sampling distribution for a "t" statistic which is appropriate when level of significance is desired for the set of all comparisons between several treatments and a control. In this study, the sample of male college students represents the control. The critical value for significance at the .10 level is 2.34. Since none of the observed values approached this, the null hypothesis was accepted. That is, there is no significant difference between Mach V scores of male college students and any of the coaching groups.

Table 3 presents the summary of the analysis of variance treatment of the data between age of college football coaches and Mach V scores. The three age levels were 25-35 years of age, 36-45 years of age, and 46 and over years of age. The computed F ratio is 1.044 and the critical value for significance at the .10 level is 2.35. Therefore, the null hypothesis is accepted. That is, there are no differences between age and Mach V scores for college and university football coaches.

TABLE 3

ANALYSIS OF VARIANCE SUMMARY FOR TREATMENT OF DATA ON MACH V SCORES AND AGE FOR COLLEGE FOOTBALL COACHES

College Football Coaches	Number	Mean	Std. Dev.
25-35 years of age	29	99.59	7.684
36-45 years of age	62	98.15	7.759
46 years of age and over	33	96.85	6.462

Source of Variation	DF	SS	MS	F	F.10
Between Groups	2	115.000	57.500	1.044	2.35
Within Groups	121	6662.000	55.058		
Total	123	6777.000			

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[14] Ibid. p. 32

TABLE 4

ANALYSIS OF VARIANCE SUMMARY FOR TREATMENT OF DATA ON MACH V SCORES AND AGE FOR COLLEGE TRACK COACHES

College Track Coaches	Number	Mean	Std. Dev.
25-35 years of age	37	99.19	6.823
36-45 years of age	46	97.28	7.102
46 years of age and over	32	95.13	6.738

Source of Variation	DF	SS	MS	F	F.10
Between Groups	2	284.00	142.000	2.971	2.39[a]
Within Groups	112	5353.00	47.795		
Total	114	5637.00			

[a] Significant at the .10 level

Table 4 presents the summary of the analysis of variance treatment of the data between age of college track coaches and Mach V scores. The three age groups were the same as those used with college football coaches. The computed F ratio is 2.971 and the critical value for significance at the .10 level is 2.39. This significant F ratio is evidence of a difference among the three age groups and Mach V scores. To locate where the differences are found between age and Mach V scores, the Scheffe test of multiple comparisons was applied. The computer program contained an adjustment in the degrees of freedom whereby the values shown in the multiple comparisons tables are F ratios which may be judged against the critical value of 2.39. The comparisons of Mach V means are shown in Table 5. The comparison value of 2.965 between track coaches who are 35 to 45 years of age and those who are over 46 years of age indicates significant differences on Mach scores. Track coaches who are over 46 years old have significantly lower scores than those who are under 35 years of age on Machiavellianism.

Table 6 presents the summary of the analysis of variance treatment of the data between age of college basketball coaches and Mach V scores. The age groups are the same as those used for football and track. The computed F ratio is 0.934 and the critical value for significance at the .10 level is 2.39. Therefore, the null hypothesis is accepted. That is, there are no differences between age and Mach V scores for college basketball coaches.

Table 7 presents the summary of the analysis of variance treatment of the data between age of high school football coaches and Mach V scores. Data for only two age groups were analyzed for the high school coaches, due to the smaller number of high school coaches. The age groups were 25 to 35 years of age and 36

TABLE 5

MULTIPLE COMPARISONS OF MACH V MEANS WITHIN TRACK COACHES

	Means	99.19	97.28	95.13
25-35 years of age	99.19	0.0	0.78	2.965[a]
36-45 years of age	97.28	0.0	0.0	0.919
46 years of age and over	95.13	0.0	0.0	0.0

[a] Significant at the .10 level

TABLE 6

ANALYSIS OF VARIANCE SUMMARY FOR TREATMENT OF DATA ON MACH V SCORES AND AGE FOR COLLEGE BASKETBALL COACHES

College Basketball Coaches	Number	Mean	Std. Dev.
25-35 years of age	39	98.46	8.379
36-45 years of age	43	96.37	8.533
46 years of age and over	22	98.73	6.311

Source of Variation	DF	SS	MS	F	F.10
Between Groups	2	121.375	60.688	0.934	2.39
Within Groups	101	6562.188	64.972		
Total	103	6683.563			

TABLE 7

ANALYSIS OF VARIANCE SUMMARY FOR TREATMENT OF DATA ON MACH V SCORES AND AGE FOR HIGH SCHOOL FOOTBALL COACHES

High School Football Coaches	Number	Mean	Std. Dev.
25-35 years of age	55	98.04	7.515
36 years of age and over	14	95.14	6.455

Source of Variation	DF	SS	MS	F	F.10
Between Groups	1	93.438	93.438	1.743	2.79
Within Groups	67	3591.688	53.607		
Total	68	3685.125			

TABLE 8

ANALYSIS OF VARIANCE SUMMARY FOR TREATMENT OF DATA ON MACH V SCORES AND AGE FOR HIGH SCHOOL BASKETBALL COACHES

High School Basketball Coaches	Number	Mean	Std. Dev.
25-35 years of age	62	97.94	9.176
36 years of age and over	22	95.18	7.109

Source of Variation	DF	SS	MS	F	F.10
Between Groups	1	123.188	123.188	1.630	2.79
Within Groups	82	6197.063	75.574		
Total	83	6320.251			

TABLE 9

ANALYSIS OF VARIANCE SUMMARY FOR TREATMENT OF DATA ON MACH V SCORES AND YEARS OF EXPERIENCE AS A HEAD COACH FOR COLLEGE FOOTBALL COACHES

College Football Coaches	Number	Mean	Std. Dev.
0-5 years experience	60	99.13	8.031
6-12 years experience	39	98.00	6.775
13 years experience and over	25	95.96	6.611

Source of Variation	DF	SS	MS	F	F.10
Between Groups	2	179.00	89.500	1.641	2.35
Within Groups	121	6598.00	54.529		
Total	123	6777.00			

years of age and over. The computed F ratio is 1.743 and the critical value for significance at the .10 level is 2.79. Therefore, the null hypothesis is accepted. That is, there are no differences between age and Mach V scores for high school football coaches.

Table 8 presents the summary of the analysis of variance treatment of the data between age of high school basketball coaches and Mach V scores. The age group categories were the same as those used for high school football coaches. The computed F ratio is 1.630 and the critical value for significance at the .10 level is 2.79. Therefore, the null hypothesis is accepted. That is, there are no differences between age and Mach V scores for high school basketball coaches.

Table 9 presents the summary of the analysis of variance treatment of the data between years in coaching for college football coaches and Mach V scores. The three levels of years in coaching was 0-5 years, 6-12 years, and 13 years and over. The computed F ratio is 1.641 and the critical value for significance at the .10 level is 2.35. Therefore, the null hypothesis is accepted. That is, there are no

TABLE 10

ANALYSIS OF VARIANCE SUMMARY FOR TREATMENT OF DATA ON MACH V SCORES AND YEARS OF EXPERIENCE AS A HEAD COACH FOR COLLEGE TRACK COACHES

College Track Coaches	Number	Mean	Std. Dev.
0-5 years of experience	47	98.77	7.326
6-12 years experience	35	97.51	6.608
13 years experience and over	33	94.97	6.617

Source of Variation	DF	SS	MS	F	F.10
Between Groups	2	282.00	141.000	2.949	2.39[a]
Within Groups	112	5355.00	47.813		
Total	114	5637.00			

[a] Significant at .10 level

TABLE 11

MULTIPLE COMPARISONS OF MACH V MEANS WITHIN TRACK COACHES

	Means	98.77	97.51	94.97
0-5 years experience	98.77	0.0	0.329	2.922[a]
6-12 years experience	97.51	0.0	0.0	1.150
13 years experience and over	94.97	0.0	0.0	0.0

[a] Significant at .10 level

differences between years in coaching and Mach V scores of college football coaches.

Table 10 presents the summary of the analysis of variance treatment of the data between years in coaching for college track coaches and Mach V scores. The three levels of years in coaching was the same as that used for football coaches. The computed F ratio is 2.949 and the critical value for significance is 2.39. This significant F ratio is evidence of a difference among the three levels of coaching experience and Mach V scores. To locate where the differences are found between coaching experience and Mach V scores, the Scheffe test of multiple comparisons was applied. The comparisons of Mach V means are shown in Table 11. The comparison value of 2.922 between track coaches with 0-5 years experience and those with 13 and over years of experience indicates significant differences on Mach scores. Track coaches with over 13 years of experience have significantly lower Mach scores than those with less than six years of coaching experience.

Table 12 presents the summary of the analysis of variance treatment of the data between years of coaching for college basketball coaches and Mach V scores. The three levels of years in coaching was the same as that used for football and track coaches. The computed F ratio is 0.284, and the critical value for significance at the .10 level is 2.39. Therefore, the null hypothesis is accepted. That is, there are no differences between years in coaching and Mach V scores for college and university basketball coaches.

Table 13 presents the summary of the analysis of variance treatment of the data between college and university football coaches with a won-loss record of

TABLE 12

ANALYSIS OF VARIANCE SUMMARY FOR TREATMENT OF DATA ON MACH V SCORES AND YEARS OF EXPERIENCE AS A HEAD COACH FOR COLLEGE BASKETBALL COACHES

College Basketball Coaches	Number	Mean	Std. Dev.
0-5 years experience	51	97.84	3.484
6-12 years experience	28	96.71	8.679
13 years experience and over	25	98.32	6.498

Source of Variation	DF	SS	MS	F	F.10
Between Groups	2	37.438	18.719	0.284	2.39
Within Groups	101	6646.125	65.803		
Total	103	6683.563			

TABLE 13

ANALYSIS OF VARIANCE SUMMARY FOR TREATMENT OF DATA ON MACH V SCORES AND WON-LOSS RECORDS FOR COLLEGE FOOTBALL COACHES

College Football Coaches	Number	Mean	Std. Dev.
Won-Loss Record Below 60%	81	97.58	7.352
Won-Loss Record Above 60%	43	99.19	7.529

Source of Variation	DF	SS	MS	F	F.10
Between Groups	1	72.000	72.000	1.310	2.75
Within Groups	122	6705.000	54.959		
Total	123	6777.000			

over 60% with those whose won-loss record is under 60% on Mach V scores. The computer F ratio is 1.310 and the critical value for significance at the .10 level is 2.75. Therefore, the null hypothesis is accepted. That is, there is no difference between college football coaches with over 60% won-loss records and those with won-loss records below 60% on Machiavellianism.

Table 14 presents the summary of the analysis of variance treatment of the data between college and university basketball coaches with a won-loss record of over 60% with those whose won-loss record is under 60% on Mach scores. The computed F ratio is 3.160 and the critical value for significance at the .10 level is 2.79. This significant F ratio is evidence of a difference between these two groups. Thus basketball coaches with a won-loss record of over 60% have significantly lower scores than those with won-loss records under 60% on Machiavellianism.

Table 15 presents the summary of the analysis of variance treatment of the data between high school football coaches with a won-loss record of over 60% with those whose won-loss record is under 60% on Mach V scores. The computed F ratio is 0.001 and the critical value for significance at the .10 level is 2.79. Therefore, the null hypothesis is accepted. That is, there is no difference between high

TABLE 14

ANALYSIS OF VARIANCE SUMMARY FOR TREATMENT OF DATA ON MACH V SCORES AND WON-LOSS RECORDS FOR COLLEGE BASKETBALL COACHES

College Basketball Coaches	Number	Mean	Std. Dev.
Won-Loss Record Below 60%	67	98.69	8.221
Won-Loss Record Above 60%	37	95.78	7.495

Source of Variation	DF	SS	MS	F	F.10
Between Groups	1	200.813	200.313	3.160[a]	2.79
Within Groups	102	6482.750	63.556		
Total	103	6683.563			

[a] Significant at the .10 level

TABLE 15

ANALYSIS OF VARIANCE SUMMARY FOR TREATMENT OF DATA ON MACH V SCORES AND WON-LOSS RECORDS FOR HIGH SCHOOL FOOTBALL COACHES

High School Football Coaches	Number	Mean	Std. Dev.
Won-Loss Record Below 60%	40	97.47	7.990
Won-Loss Record Above 60%	29	97.41	6.533

Source of Variation	DF	SS	MS	F	F.10
Between Groups	1	0.063	0.063	0.001	2.79
Within Groups	67	3685.063	55.001		
Total	68	3685.125			

school football coaches with won-loss records of over 60% and those with won-loss records under 60% on Machiavellianism.

Table 16 presents the summary of the analysis of variance treatment of the data between high school basketball coaches with a won-loss record of over 60% with those whose won-loss record is under 60% of Mach V scores. The computed F ratio is 0.258 and the critical value for significance at the .10 level is 2.79. Therefore, the null hypothesis is accepted. That is, there is no difference between high school basketball coaches with won-loss records of over 60% and those with won-loss records under 60% on Machiavellianism.

DISCUSSION

Christie and Geis[15] have suggested that there is a relationship between kinds of occupations and Mach scale scores. They suggest that high-Machs will more likely be found in occupations in which the situational conditions resemble the experimental conditions under which high-Machs are more successful. In this study, it was hypothesized that college and high school athletic coaches would

TABLE 16

ANALYSIS OF VARIANCE SUMMARY FOR TREATMENT OF DATA ON MACH V SCORES AND WON-LOSS RECORDS FOR HIGH SCHOOL BASKETBALL COACHES

High School Basketball Coaches	Number	Mean	Std. Dev.
Won-Loss Record Below 60%	53	97.58	8.861
Won-Loss Records Above 60%	31	96.58	8.598

Source of Variation	DF	SS	MS	F	F.10
Between Groups	1	19.813	19.813	0.258	2.79
Within Groups	82	6300.438	76.835		
Total	83	6320.250			

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[15] Ibid. p. 354-356.

score higher on the Mach V scale because the situational conditions appear to be similar to those in which laboratory experiments found high-Machs to be successful and to occupations in which high Machiavellianism is characteristic. The results of this study showed no differences between the Mach V scores of a sample of male college students (N-764) reported by Christie and Geis[16] and any of the college and high school athletic coaching groups.

How can we account for the findings that athletic coaches are no higher in Machivellianism than a general college student group? One possibility is that some high-Mach coaches did not return the Mach V questionnaire. Laboratory studies have shown that high-Machs tend to be suspicious people—they are more suspicious of instructions and procedures in a situation. Although the percentage of returned Mach questionnaires was fairly high for all coaching groups, perhaps the high-Mach coaches refused to return the questionnaire because they were suspicious of the purpose and nature of it.

Another possibility in regard to the findings, and one that seems more tenable to this investigator, is that the degree of structure in athletic coaching does not meet the situational conditions in which high-Machs are attracted and are successful. Athletic coaching does provide a setting for frequent face-to-face interaction, so it seems that this situational condition is fully met in coaching. It is possibly in latitude for improvisation where coaching does not meet the situational conditions in which high-Machs are found. In many ways coaching permits little latitude for improvisation. The day to day tasks of athletic coaching are relatively standardized. The coach must function within the constraints of the policies of the institution for which he works, he must abide by the rules of the sport in which he coaches and he is regulated by conference and national athletic associations. The criterion for success in coaching is intimately related to objective performance—winning; this is another constraint to improvisation in that the situation is highly structured providing little room or latitude for improvisation. Any improvisation that occurs is primarily that of teaching skills and developing strategy and tactics for contests.

The third situational condition, that of irrelevant affect, seems to apply to coaching in most respects. Those who are less subject to the arousal of irrelevant affect would seem to function well in coaching. In general, the coach cannot become too affectively involved with those whom he is coaching, he must detach and depersonalize his relationships with the players in order to make effective decisions with regard to player selection, devising strategies, and a host of other decisions which require taking a hard line for the benefit of the team. On the other hand, high-Mach coaches, with a cool cognitive analysis of the needs of the team and a disregard for individual needs of their players, could perhaps produce a team with low morale, which may adversely affect individual and team performance.

It seems that we can agree with Christie and Geis with regard to attempting to relate coaching to Machiavellianism. They state that in attempting to generalize from the laboratory paradigm to the real world there is "simply not enough detailed information about the relative degree and kind of face-to-face contact, latitude for improvisation, and arousal of irrelevant affect in these situations to be precise in analyzing their influence."[17]

With regard to the statements made in recent years about the personality dynamics of coaches by critics such as Scott who said that "coaches as a group are rather insensitive in their interpersonal relationships, and . . . they will quite readily manipulate and exploit others,"[18] the results of this study do not support the charges that have been leveled at coaches in general. This is not to say that all coaches act with empathy, sincerity, affection, and humanism; of course they do not. There are very high Machiavellians in coaching just as there are in other occupational groups. Some coaches had Mach scores of over 115 but the average scores for the coaching groups were much less.

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[16] **Ibid.** p. 32.
[17] **Ibid.** p. 348.
[18] Jack Scott, **The Athletic Revolution** (New York: The Free Press, 1971) p. 134.

Many social practices essential to the welfare of an enterprise of some sort involve the control and manipulation of one person by another. To maintain the position that all control is bad, it is necessary to disguise useful practices for the accomplishment of many worthwhile goals. Although the goals of sports participation are (or should be) broader than merely winning contests, it is obvious that in American society winning is a primary goal in all sports competition, and winners are accorded high esteem and other rewards while losers are given little sympathy or are treated with disrespect. The athletic coach, then, has a well-defined social role—the production of a winner. Control of the conditions for producing a winning team becomes important. Coordination of many individual talents, and coordination of the strategy and tactics of the entire team makes certain forms of control necessary for achieving the objective of a successful team. Thus control is important in coaching. The problem is one of freeing athletes, not from control by the coach, but from certain kinds of capricious and unwarranted control exercised by a few coaches.

Even though Christie and Geis[19] found that Machiavellianism gradually decreases with age in adults, it was hypothesized that Mach scores of athletic coaches would increase with age and with years in coaching. Since the situational conditions of coaching appear to be similar to the conditions in which high-Machs are successful, it would seem that low-Machs will be screened out of the coaching occupation and those who remain will increase their Machiavellianism due to the situational conditions found in coaching.

The results of this study do not support the hypothesis that coaches increase in Machiavellianism with age and with years in coaching. For college football and basketball coaches there was no significant increase in Machiavellianism with years of age or with experience as a coach. For college track coaches, there was a significant difference in Mach scores between track coaches who were over 45 years old and those who were under 35 years of age, and there was a significant difference between track coaches with over 13 years of experience and those with less than six years of coaching experience. However, in both cases the differences were in the opposite direction from that which was hypothesized. Instead of an increase in Machiavellianism with age and years experience, there was a significant decrease in Machiavellianism.

The hypothesis that Machiavellianism increases with age and coaching experience for athletic coaches was based on the assumption that athletic coaching meets the situational conditions of the "interaction model" which Christie and Geis[20] proposed. Since the basic finding of this study suggests that athletic coaching perhaps does not fit the "interaction model," it seems that Machiavellianism among coaches would follow the same pattern of decline as reported by Christie and Geis.[21] The findings with college track coaches are in accordance with their findings.

The hypothesis that winning coaches are higher in Machiavellianism was based on previous findings (Geis,[22] Geis,[23] Christie and Geis,[24]) that high-Machs are more competitive, organize and exploit whatever resources the situation provides more effectively, and consequently win more of whatever is being contested for than low-Machs. Furthermore, groups in which high-Machs are the leaders perform more effectively than those led by low-Machs.

The findings of this study do not support the hypothesis that winning coaches are higher in Machiavellianism than losing coaches. This finding is particularly puzzling because one of the most consistent findings of research on Machiavellianism is that high-Machs win more—they mobilize their resources to achieve task goals better than low-Machs. One possibility for explaining the present finding is that player ability is more important than the interpersonal manipulation traits of coaches. In other words, winning athletic contests depends more upon the athletic ability of the players than upon personal characteristics of coaches. A second possibility is that the high-Mach, with his detachment from emotional involvement with the personal needs of his players, may reduce the morale of his team. It is commonly believed, although not well, documented that low morale is associated with poor performance (Gellerman,[25] Vroom,[26]). It is possible that because of the delicate nature of the interpersonal relations that appear to be necessary to get optimal effort from athletes, high Machiavellianism may be a deterrent rather than an asset in producing winning teams. The findings of this study, though, indicate that there are no differences between winning coaches, except in the case of college basketball coaches, and in this case the finding is in the opposite direction to that which was hypothesized.

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[19] Christie and Geis, "**Some Consequences of Taking Machiavelli Seriously,**" pp. 966-969.

[20] Christie and Geis, **Studies in Machiavellianism**, pp. 285-294, 350-354.

[21] Christie and Geis, "Some Consequences of Taking Machiavelli Seriously," pp. 966-969.

[22] Florence L. Geis, "The Con Game," In **Studies in Machiavellianism**, eds. Richard Christie and Florence Geis, pp. 105-160.

[23] Geis, "Machiavellianism in a Semireal World," pp. 407-408.

[24] Christie and Geis, "Some Consequences of Taking Machiavelli Seriously," pp. 949-973.

CONCLUSIONS

Within the limitations imposed by the sample of subjects used in this study, the following conclusions are warranted:

1) There are no differences in Machiavellianism between college and high school athletic coaches and male college students.
2) There are no differences in Machiavellianism among college football, college basketball, high school football, and high school basketball coaches with regard to years of age or head coaching experience.
3) College track coaches who are over 45 years of age are lower in Machiavellianism than those who are under 35 years of age, and college track coaches with over 13 years of coaching experience are lower in Machiavellianism than those with less than six years of head coaching experience.
4) There are no differences in Machiavellianism between college football, college basketball, high school football, and high school basketball coaches with winning records (Over 60%) and coaches with won-loss records under 60%.

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[25] Saul W. Gellerman, **Motivation and Productivity** (American Management Association 1963).

[26] Victor H. Vroom, **Work and Motivation** (New York: John Wiley, 1964), pp. 211-270.

The Influence of Ressentience as Identified in College Basketball Coaches

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Increasing criticism of institutionalized sport has come from many segments of our society, not the least of which is the sport culture itself. Sport existentialists, notably Slusher[1], suggest that sport in its most institutionalized form strips bare the individual identity of the participant when winning becomes the end result, and sport only the means to reach that end. Some social-behavioral scientists, along with ex-professional and college athletes, have focused their criticisms on the inflexible and demeaning behavior of coaches that causes deprivation of the individual. Scott[2] and Meggyesy[3] suggest that attitudes of coaches often nurture learning environments that inhibit all but the obedient, and foster mechanized, robot-like athletic performances. Ogilvie and Tutko[4] feel that highly organized sport may reject "unlikely" personalities and only reinforce those personalities that are already suitable for the athletic scene.

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[1] Howard Slusher, **Man, Sport and Existence** (Philadelphia: Lea and Febiger, 1967).

On the other hand, most lists of educational goals and objectives imply: 1) sport environments run quite parallel to real life; 2) sport experiences provide an important preparation for the future; 3) coaches are generally well equipped to mold youth into worthwhile citizens. Minimal research exists in sport towards the solution of this ambivalent discussion. But the effects of oppressive teachers' attitudes on classroom learning has been central to numerous investigations and commentaries, and it may be worthwhile to generalize some of this information towards the understanding of this sports problem. Since the criticisms and defenses continue to mount concerning the coach and institutionalized sport, and their contributions to the "whole" development of the athlete, it seems justifiable to attempt to add some credible evidence to the discussion through the preparation of this paper.

The focus of this presentation will be the investigation of a social phenomena that appears to be amenable to research and underlines an attitudinal characteristic that negatively affects learning. This attitude is called **ressentiment** and exists through the influence of the coach's covert and subtle attitude towards learning.

RESSENTIMENT: A DEFINITION

In order to understand the nature of this research, an operational definition for ressentiment should be understood as well as the effect it has on learning. Ressentiment was first introduced by Nietzsche in the **Genealogy of Morals** and is less completely conscious than ordinary resentment.[5]

> They contrast since ressentiment is usually rationalized, covert . . . and largely unconscious . . . a free floating ill temper . . . systematic repression of certain emotions . . . which, as such, are normal components of human nature. Emotions primarily concerned are revenge, hatred, malice, envy, the impulse to detract and fight.

Commenting on Nietzsche's work, Scheler[6] stated,

> When the feelings of hatred, revenge, envy and the like can be acted out, no ressentiment will result. When these feelings are continually revoked, then impotence sets in and ressentiment is present.

Defining ressentiment in educational environments, Friedenberg et.al.[7] stated,

> By their very design, social agencies carry with them institutional presses of varying influence. Within ressentiment, the institutional press is a unique set of modes by which the system seeks to bend the individuals participating in the system to its demand. The degree that an individual bends to the pressures of the institutional press leads to personality development, and it can be good or bad. Ressentiment begins when an angry individual feels an oppressive sense of impotence which he cannot imagine actively transcending. The impotence begins when the individual feels he has actually lost out continually in competition with others over the course of his life.

Ressentient and Ressentience are two words that stem from ressentiment that are its psychological manifestation, the attitude, emerging from that specific social press. "Ressentient is the adjective form, describing the condition, and ressentience is the noun form-the condition of a ressentient person."[8]

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[2] Jack Scott, **Athletic Revolution** (New York: Free Press, 1971).

[3] Dave Meggyesy, **Out of Their League** (Berkeley: Ramparts, 1970).

[4] Bruce Ogilvie and Tom Tutko, "If You Want to Build Character Try Something Else", **Psychology Today**, (Oct., 1971), pp. 60-63.

[5] Frederick Nietzsche, **Genealogy of Morals**, (New York: Doubleday, 1956) pp. 8, 9.

[6] Max Scheler, **Ressentiment** (New York: Free Press, 1961) p. 24.

[7] Edgar Friedenberg, Carl Nordstrom, and Hilary Gold, **Societies Children: A Study of Ressentiment in Secondary Schools** (New York: Random House, 1961) pp. 12, 13.

According to Kreuter and Parsons[9], ressentience is made up of specific factors that are available in most social agencies and can be explained through examples in sport. The first factor, egalitarianism, exists as a levelling process. It is a forced equality, and can be manifested by "look alike" teams, by everyone being forced to hold the golf club the same way, or by all players being forced to shoot a jump shot one way. Individuals would not be allowed to explore movement applicable to their own unique neural-muscular functions and body types. Discussing the egalitarian theory, Scheler stated[10],,

> Ressentiment, unable to acquiesce in the sight of the higher values, concealed its nature in the postulate of equality. In reality, it merely wants to decapitate the bearers of higher values, at whom it takes offense.

The ressentient man, oppressed and frightened, is obsessed with envy for those who rise above his unconscious torment, and is ill equipped in his ability to express it.

When obedience is employed by coaches, players learn that they must be obedient to the coaches' dogma before any meaningful communication can take place, and that is ressentient. Discipline, gained through some kind of self-management, is an important goal in sport, but it is not to be confused with obedience; it is not brought about by learning to obey but by learning to manage oneself.

Denegration contributes to ressentience as a denial of individual rights, and the defamation of an individual's personality. Often it rides the thorns of insidious sophisticated wit and is opposite to the raising of the self-concept. This style of ressentience is most demeaning when there are no allowances made for retort-when sarcasm exists on a one way street.

Rule orientation magnifies ressentience when the rules are inflexible, unrealistic, do not take into account individual differences, and do not include team members in the determination of the rules.

As Nietzsche[11] implies, moralizing engages ressentience when a coach feels he builds character and promotes social development by emphasizing his own belief system. This takes place through subtle innuendo, or more overtly oppressive methods, such as the liberal use of punishment.

When basic distrust permeates an environment, coaches would be continually on the alert for athletes cheating, for athletes taking short cuts, or for any behavior that opposes the status quo. This factor of ressentience can only be lessened by the coaches' initial extension of trust to the players.

In total, a ressentient coach who is long on obedience, denegration, moralizing, inflexible rules, distrust, and egalitarianism would promote docile, conforming, and spiritless individual athletes and teams.

This may suggest that only permissive coaches can be low in ressentience. The fact is, strict disciplinarians could be just as low, since it is more the style of leadership that affects ressentience, than its content. The following example may assist this clarification. There are few social institutions where rules are not an important force, and sport is certainly one of those. Moreover, rules without enforcement are of nebulous value, thus, it becomes the responsibility of the coach to require their fulfillment. To require is not a ressentient act; the style of the enforcement is the key and can definitely be ressentient. If the coach enforces a rule in an inflexible and demeaning fashion, and does not allow for the player to retain his dignity, then that is ressentience.

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[8] Marshall Kreuter, "Study of Ressentient Attitudes as Measured in Selected Sixth Grade Teachers," Unpublished Dissertation, University of Utah, 1971.

[9] Marshall Kreuter and Michael Parsons, "Continued Research on Ressentient Attitudes," Faculty Research Grant, University of Utah, 1971.

[10] Scheler, op. cit., 1961, pp. 143, 144.

[11] Nietzsche, op. cit., 1956.

PROBLEM

The general problem was to assess the influence of ressentience as it was identified in college basketball coaches and to study ressentient personalities who were college basketball coaches. Specifically the problems were:

1) To determine any differences between the coaches' scores on the revised Parsons-Kreuter Ressentiment Index (P-KR) and the players' scores on the revised Friedenberg-Nordstrum Ressentiment Index (F-NR).
2) To determine any differences among 5 groups of college basketball teams as to the incidence of ressentience perceived. (e.g., University varsities, college varsities, junior college, university freshmen and college junior varsities—J.V.'s).
3) To determine whether the degree of coaches' ressentience, as measured by the P-KR index, was a function of the coaches' personalities as measured by the Athletic Motivational Inventory (AMI).
4) To determine differences between black and white players and starters and substitutes in their assessment of ressentience.

In order to solve these problems, it was necessary to revise two existing indices that were originally designed to measure ressentience in the classroom. They were: 1) to revise the Friedenberg-Nordstrum Ressentiment Index (F-NR)[12] so that it would be applicable for the assessment of ressentient attitudes in sport team environments; 2) To revise the Parsons-Kreuter Ressentiment Index (P-KR)[13] so that it would be applicable for the measurement of ressentient attitudes in coaches.

At the University of Utah in 1970, Kreuter[14] revised the F-NR index so that it would be applicable for the measurement of ressentience in elementary schools. In some additional research, Parsons and Kreuter[15] standardized the F-NR revised index so that it would be applicable in the assessment of ressentience for K through 12 grades. In addition, Parsons and Kreuter developed the Parsons-Kreuter (P-KR) that asked teachers to appraise their own attitudes about ressentience as it existed in their own psychological makeup.

With careful consideration given to the working definitions of ressentiment provided by Friedenberg, et.al[16], Scheler[17], Nietzsche[18], and Parsons and Kreuter[19], questions were constructed that retained the content of the original questionnaires (P-KR and F-NR) but placed them in the sport context. At each stage of the indices' development, a careful review of the questions was made by Parsons and Kreuter with a final approval from Nordstrum and Friedenberg. A pilot study was conducted at Western Washington State College for the P-KR revised index for coaches (N-62) and for the F-NR revised index for student athletes (N-127). The test re-test method for reliability displayed an r of .78 for the P-KR revised index and .84 for the F-NR revised. After the unreliable questions were discarded, the reliabilities moved to .85 for the P-KR and .89 for the F-NR.

Construct and content validity were demonstrated by the careful construction of test questions and a conscientious review of the questions by Parsons and Kreuter. Moreover, the validities were supported by the high reliabilities found in the test re-test runs.

The Athletic Motivational Inventory (AMI) was selected to assess the personalities of the players and coaches since it was constructed specifically to measure the personality as it relates to athletics[20].

Subjects were asked to respond to the ressentiment indices on a one to six continuum, from "I agree a little" to "I strongly disagree." In scoring the indices, a respondent was awarded from 1 to 7 points for each question, according to the degree of ressentience or non-ressentience. Ressentient answers received either 5, 6, or 7 points, while non-ressentient answers were assigned 1, 2, or 3 points. The numeral 4 was used only for questions inadvertently unanswered. A sample question from each index is displayed below.

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[12] Friedenberg, et. al., **op. cit.**, 1961

[13] Kreuter, **op. cit.**, 1971

[14] Kreuter, **op. cit.**, 1971

[15] Kreuter and Parsons, **op. cit.**, 1971

[16] Friedenberg, et. al., **op. cit.**, 1961

[17] Scheler, **op. cit.**, 1961

[18] Nietzsche, **op. cit.**, 1956

[19] Kreuter and Parsons, **op. cit.**, 1971

[20] Bruce Ogilvie, Tom Tutko, and Lee Lyon, "AMI Test Pamphlet", Institute for Sport Motivation, San Jose, 1970

P-KR (revised)

3 1. One of the strengths of a good coach lies in his ability to teach obedience.

F-NR (revised)

3 23. Team members here are allowed to determine many of their own rules and regulations.

Scoring explanation: For a coach to strongly agree (numeral 3) to question number one would indicate a highly ressentient response, and he would accordingly receive seven points. If the coach's answer had been number one (I agree a little) it still would have been ressentient but to a lesser degree and would receive five points. A player response on the F-NR index of three (I strongly agree) indicates a very non-ressentient answer and would be assigned one point. Each question was assigned a numerical rating and a total ressentience score was given each respondent based upon all 40 items.

METHODOLOGY

The population of basketball players and coaches was selected from 17 college, junior college, and university basketball teams in the Pacific Northwest during the 1970-71 basketball season. It consisted of four university division teams (N-47), four university division freshman teams (N-40), three college division varsity teams (N-30), three college division junior varsity teams (N-28), and three junior college teams (N-40). At two separate meetings, each of the players was administered the F-NR index revised and the AMI. Coaches (N-24) were administered the P-KR index revised and the AMI. The AMI was administered at the beginning of the season, during the months of November and December, while the revised P-KR and F-NR indices were administered at the conclusion of the basketball season, since the content of the questions asked the subjects to reflect on attitudes observed during that season. The AMI's were scored by the Institute for Sport Motivation at San Jose State College, San Jose, California, and the ressentiment indices were hand scored by the researcher.

STATISTICAL ANALYSES

A Pearson *r* was used to determine the strength of the linear relationship between coaches' scores on the P-KR index revised and players' scores on the F-NR index. To determine significant differences among the players' assessments of ressentience across the five team divisions, analysis of variance was used along with Scheffe's post hoc test. Analysis of variance was also used to determine the relationship of black and white players and substitutes and starters regarding their assessments of ressentience. Coaches were placed in a three group continuum based upon their scores on the P-KR revised index, and players were placed in five groups based upon F-NR revised scores. Significant group differences were determined on the 11 personality traits of the AMI by analysis of variance and Scheffe's.

REVIEW OF LITERATURE

An attempt was made through a review of literature to forecast differences in the perceptions of ressentience between groups of black players and white players, between starters and substitutes, and between coaches and players who were in the same team environment. Two main ressentiment studies have been completed and were discussed earlier in this paper[21], [22] though neither mentioned ressentiment as it would exist in a sport environment. So, an attempt was made to locate other literature applicable to the three sub-topics.

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[21] Friedenberg, et. al., op. cit., 1961.

[22] Kreuter, op. cit., 1971

Using Grusky's theory of centrality as a central research theme, Loy and Elvoque[23] judged that racial segregation did exist on professional football and baseball teams. They determined that the black athlete held down positions of periphery, while positions of centrality (i.e., authority) were reserved for white athletes. Although various reasons were offered for this racial segregation, the most tenable explanation suggested segregation was practiced in sport for the same reasons as in society as a whole. It seems, then, that a ressentient sport environment would resist integration in many subtle ways and the institutional press of this segregation would tend to increase the perception of ressentience by black players (e.g., this would not necessarily mean the exclusion of black athletes from teams).

For even the most casual observer of basketball in the United States, it is obvious that black athletes have been well integrated into the game, in fact, to the point of domination (e.g., approximately 60% of the players in the NBA are black). Manus[24] feels that black players have adapted well to the "system" and have forgotten their loose, free style of the playgrounds for the hustling, win-at-all-costs style of the white establishment. Jeremy Larner in the book, **Drive, He Said**[25], called it "white boss style" and agreed with Manus, that it was contrary to Black culture to play basketball in the driving, hustling, and vicious manner of conventional society. The degree of ressentience assessed should increase if the black athlete sacrifices his natural free style of play in order to conventionalize to the status quo of basketball.

Though his response was from but an individual experience within the vast network of sport, Dave Meggyesy[26] defined a scene that appeared to be classically ressentient. After a very difficult loss, Meggyesy overheard his coach saying,

> If he had hit in there like he did on 3rd down instead of trying to pussyfoot it over, he would have made it . . . ,

speaking further of the same experience, Meggyesy said,

> I hoped Coach Vogt would say something to lessen my guilt. Instead he ignored me . . . . It was clear that Coach Vogt's prime concern was in winning football games and that he was concerned about his players only to the extent that they could contribute to that . . . but after I went all out to win a game and just barely failed, Vogt had no words for me.

Another Meggyesy[27] example was, "It was always hot and humid in Syracuse during pre-season drills in early September, and we were not allowed to drink anything on the practice field".

Friedenberg and Nordstrum[28] supported Meggyesy, in that strict rule orientation exists in much of the sports world. They state, "the morality of the dress regulation is essentially negative and defensive and is based on distrust", and this is ressentience. Because of this and other inflexible, rigid, rule enforcements, the free spirits may have long since vanished from sport, and only the suppressed and the super skilled remain.

Beisser[29] discussed the early conventionalizing in American sports, and he found it difficult to view any differences between Pop Warner football and a Sunday of NFL action. Uniforms, publicity, coaches, offensive and defensive formations, etc., are the same, only the size of the players vary. So the need to adjust to the established sport environment is a ressentient one and starts ever so soon. With this in mind, the force of ressentience appears to play a key role in the development of youngsters in sport. The need to satisfy ambition and incur accomplishment is an important goal in sport, but the sport establishment determines the "style" with which it is to be done. Beisser[30] writes further of sport's conventionalizing enslavement.

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[23] John Loy and Joseph Elvogue, "Racial Segregation in American Sport," **International Review of Sport Sociology**, 1970, **5**, 5-24.

[24] Ralph Slovenko and James Knight, Play Motivation and Sport (Springfield, Ill: Charles C. Thomas) pp. 435-444.

[25] Jeremy Larner, **Drive, He Said** (New York: Bantam Books, 1971) pp. 102, 103.

[26] Meggyesy, **op. cit.**, 1970, pp. 19, 20.

[27] Meggyesy, **op. cit.**, 1970, p. 56.

[28] Friedenberg, et. al., **op. cit.**, 1961, 135.

[29] Arnold Beisser, **Madness in Sport** (New York: Appleton-Century-Crafts, 1967) pp. 9, 10.

> The lover of a beautiful woman protects his cherished concept of her from anything which may detract from her beauty, and better let well enough along . . . this is the prevailing attitude of Americans towards their love affair with sports—but, in sports, unless more than the surface is explored, men can become slaves, entrapped instead of being able to exercise free will.

Scott[31] states that:

> Mindless obedience seems to be the most essential ingredient for success in many American sports. In fact, when coaches talk of discipline—a quality I'm sure we all would agree is necessary for success in athletics—they really are talking about obedience.

Most coaches feel that an athlete who is consistently obedient is a most efficient, disciplined athlete disregarding the fact that this has nothing to do with self-discipline. Thus, the athlete who does not respond to the coach's authority on every agenda item, may be termed uncoachable, adding strength to the theory that ressentience does exist in sport and may be an omnipotent force in its administration.

Friedenberg, et. al., [32], found some variances in the perception of ressentience between teachers and students. This was purely a phenomenological view of the authors but suggested a variance would exist in the coaches' and players' perceptions of ressentience. Conversely, Kreuter's[33] study demonstrated a strong relationship between teachers' and students' assessments of ressentience in sixth grade classrooms.

RESULTS

A Pearson r of .107 was found when the players' assessments of ressentience were compared to the coaches' perceptions of ressentience in similar team settings. This was far from significant and supported the secondary evaluation included in the Friedenberg et. al., study. A similar comparison was made of coaches and players by division. Though the N's were small, the trend did indicate that university division teams, both varsity and freshman, showed a much wider variance between coaches and their players on their assessments of ressentiment. Analysis of variance showed a significant F ratio among the 5 groups of players by division and found that university division varsity players perceived the greatest degree of ressentience as compared to the other 4 groups. Scheffe's post hoc test found this difference significant only when university varsity players were compared to junior varsity players. The F ratio was 2.69 at 4, and 177 degrees of freedom.

Black players were significantly higher in their perception of ressentience than were white players with an F ratio of 5.027 (P = .025) at 1 and 171 degrees of freedom. The comparison between starters and substitutes was not near significance.

Examination of differences on the 11 personality traits of the AMI among five groups of players and three groups of coaches, who were clustered according to ressentience scores, showed no significant results. Thus, the personalities of the athletes and the coaches, as measured by the AMI, had no influence on the degree of ressentience they assessed. Attempts were made to predict distinguishing personality features by varying the groupings, but the results remained non-significant.

DISCUSSION

The black players' keener assessments of ressentience apparently supports Nietzsche's original theory. It should not be surprising that black players feel more ressentience than the white players since they are products of a society that is slowly evolving from a pure racist state that existed but 100 years ago. This variance in perception may also be attributed to the general need of black players to make a greater adjustment to the basketball establishment.

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[30] Beisser, op. cit., 1967, p. 227.

[31] Scott, op. cit., 1971, 127.

[32] Friedenberg, et. al., op. cit., 1961.

[33] Kreuter, op. cit., 1971.

Whether the player was a substitute or a starter did not appear to be a factor contributing to his assessment of ressentience. Although substitutes are not afforded the same attention or notoriety as the starters, they did not feel any greater suppression of normal emotions within the concept of ressentience.

The fact that university varsity players assessed their environments as more ressentient than did the other groups could be correlated with many factors that are ressentiment's characteristics. University varsity coaches may feel it a necessity to control players' activities on and off the court, to suppress behavior of a creative nature, to have less patience with the normal learning process, to use punishment liberally, and to center motivations around winning. This situation may exist because of an extensive monetary commitment, or more seats to fill, or commitments to intersectional schedules, thus, a more business oriented, rather than education oriented format. It was interesting to note that the university varsities were followed by college division, varsities, community colleges, freshman teams, and junior varsities indicating that the second order teams (e.g., frosh and J.V.'s), regardless of the level of their competitive affiliation, perceived less ressentience.

It is not the role of this presentation to attempt to correlate ressentience with winning, since it is but one of the variables that equates with team success. Neither should ressentience be placed in any hierarchical position, as compared to other contributing variables such as talent, neuro-muscular skill, height, speed, technical knowledge of the coach, and etc.

As both ressentiment indices (e.g., F-NR and P-KR revised) were carefully constructed to measure similar concepts, it was curious to view the noted dissimilarity of those responses. Generally, coaches (P-KR revised) assessed ressentience in their own attitudinal makeups as higher than the players (F-NR revised) perceived it in their team's milieu.

An explanation for this discrepancy may be that the players had conformed to the system to such an extent that ressentience had stifled their rebellious spirit and dulled their abilities for recognition. This is in line with Scheler's[34] and more recently, Kreuter's [35] interpretation of Nietzsche's original thesis, that the docile, insipid personality, in this case the oppressed player, becomes reinforced as that personality receives more exposure to the system. Moreover because of the covert, subtle style of its existence, ressentience is seldom recognized by the teacher or coach. All too often the coach's behavior, that indicates a ressentient attitude, is reinforced by the system, without either the recipient or the forebearer realizing its effect. A second explanation may question the validity of the indices; they may not make a clear cut measurement of ressentience and need further construction revisions.

When the coaches' mean score ($X = 160$) on the P-KR revised was compared to the mean score ($X = 141$)* compiled by Parsons and Kreuter[36] for teachers on the P-KR ($N = 900$), the coaches' score was approximately one standard deviation higher. Although the content of both indices measured ressentience in the attitudinal makeup of teachers or coaches, the language and focus varied as the P-KR was directed towards classrooms and the revised edition towards sport settings. Since statistical analysis could not follow, any general statement concerning the mean score difference must be carefully guarded. The difference could be attributed entirely to the sample of coaches (N-23) selected or could recommend further study to substantiate the higher degree of ressentience found in coaches.

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[34] Scheler, **op. cit.**, 1961.

[35] Kreuter, **op. cit.**, 1971.

[36] Kreuter and Parsons, **op. cit.**, 1971.

*This is an adjusted mean value, since the original P-KR was scored on a one to six continuum for each item as compared to one to seven for the P-KR revised.

How then can one tell whether the ressentiment theory is valid as it relates to sport? Logical discussion has lead to research which may help prove it or make it more difficult to disprove. At least, it may just raise the forecast of its probability. Further study is needed and in progress through factor analysis of the indices and through on-the-spot observations of teachers and coaches being correlated with their ressentience scores.

Friedenberg[17] talks of the ressentiment concept in the forward to **Man, Sport and Existence.**

> The "physical education" men usually are the school disciplinarians; the ones who speak most derogatorily about the rebels, the long hairs, the boys in mod dress, the boys of odd behavior . . . school sports are generally contrary to existentialism in their intolerance of spirit in young people and of poetry in anything, especially in athletics itself. This is a paradox, for the athlete and the flower children ought to be allies. It is only possible to be a first-rate athlete if you can allow yourself to feel sport in your blood and open up to what it means. As Slusher makes clear, you have to "dig" the experience. The best athletes, in short, are "hippy" about sport; they hang loose but tough—relax and let it turn them on.

This implies that athletics is the creative segment of sport as creative learning is to any educational setting; and this creativeness can only truly exist in an environment free of the malaise of ressentience.

To what degree ressentiment is present in sport is not entirely known; but regardless of the answers further research may bring, coaches must still be alert to its dangers if sport is to provide individuals with the kind of fulfilling experience of which it is capable.

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[17] Slusher, **op. cit.**, 1967, p. XIII.

HISTORY OF SPORT

A History of the Concept of Athletics

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The title of this paper suggests that it might be well to begin with a brief description of what is meant by a concept and athletics as used in this context.

A concept is something more than a term, and it also extends beyond the realm of an activity. One way to describe a concept is to say that it is a configuration of ideas; it has a gestalt nature which defies precise definition. Thus, a concept is something which usually evolves or develops over a period of time. Continued and consistent use of a term and/or repeated activity frequently result in the establishment of a concept.

Athletics is a term used to describe an activity, but it is also more than that; athletics is a concept. Because it is a concept we cannot content ourselves with a mere effort of succinct definition. On the other hand, there is a need to at least offer a frame of reference if an attempt is to be made to trace the history of the concept of athletics. Certain dimensions of that which we conceive as being athletics can and should be noted. To begin with, athletics is a highly competitive activity. It is an activity in which the contestants are first and foremost motivated by the desire to win; there is a premium on victory. Those who have an integral part in an athletic endeavor can never be completely satisfied with a tie; the latter is but one step better than a loss or defeat.

The demonstration of physical prowess is another distinguishing feature of an athletic event. This physical prowess may be manifested in any one of several forms. In other words, it connotes a latitude of possibilities, extending from activities which require considerable physical endurance to those which demand the performance of highly specific, motor skills. This range is exemplified in the difference between the requirements for running in the Boston Marathon and competing in the Masters Golf Tournament. However, as different from one another as they may be, no one can deny that each of these events demands the demonstration of physical prowess in some form or another.

A third feature of athletics is that it tends to be a highly structured activity. That is, considerable planning precedes an athletic event, and the actual event or game is accompanied by extensive organization, found in many forms. The structured nature of athletics may be primarily attributed to the fact that it is designed to attract and please spectators. Some organizational demands may proceed without the anticipation of spectators, but, in general, those athletic events with the most complex structures are those which are planned for spectators.

Examples of organization and structure in athletics are found in such aspects as codified rules, officials, advance publicity, presence of newspaper reporters and broadcasters, league offices, and record keeping. Many other examples of the complex, organizational nature of athletics could be cited, but those mentioned should suffice to stress the point that athletics is far from being an activity which begins in a spontaneous manner.

With these three principal characteristics in mind, we now turn to an examination of those historical circumstances which have contributed to the development of athletics as we know it today. I would emphasize that we are referring to a development rather than progress. The collective changes may also represent progress, but our purposes in this paper are not to place a value judgment on that which has occurred. If this was a philosophical treatise, we would be more entitled and inclined to criticize the trend from a value perspective.

In the Western World when one looks for the beginning of something, the natural inclination is to start with the Greeks. Sometimes this is an erroneous assumption. But there is merit in doing so when searching for the genesis of the concept of athletics.

> The story of ancient athletics is the story of Greek athletics. The Greeks, as far as we know, were the only truly athletic nation of antiquity. To them we owe the word 'athlete' and the ideal that it expresses. This does not mean that the Greeks were the inventors of the various sports and games that we describe as athletic. The love of play is universal in all young things. Running, jumping, throwing various objects, fighting, are common to children of all races and all times. But play is not athletics, though the instinct of play is undoubtedly one of their motives, and recreation is an important element therein. The child plays till he is tired and then leaves off. The competitor in a race goes on after he is tired, goes on to the point of absolute exhaustion; he even trains himself painfully in order to be capable of greater and more prolonged effort and of exhausting himself more completely.[1]

Thus, we note that in terms of the three characteristics of athletics as outlined above, the first two are very much associated with the Greek ideal. The Romans emphasized a third dimension, that of the spectator, but at the same time the other athletic-like features were moved to the background.

Gardiner's comments with respect to the Romans are a bit confusing, but there may be a way of reconciling his ideas. He states:

> The Romans of the Republic despised athletics, but like all vigorous people they were fond of strenuous exercise. They rode, hunted, swam, boxed sometimes, or wrestled, but without any science. But these sports they regarded merely as exercise and recreation and attached no further importance to them. For competitions they had no liking, nor had athletics any place in Roman education.[2]

Later, he adds the following:

> These Roman games, however, were very different from the athletic festivals of the Greeks. The difference is implied in the very word '**ludi.**' The Greek meetings are never described as games but as contests. Whether dramatic, musical, equestrian, or athletic they are contests, competitions between free citizens, and they exist primarily for the competitors. The Roman games are **ludi**, amusements, entertainments, and the performers are slaves or hirelings; they exist for the spectators.[3]

Thus, it seems that the Romans made a rather sharp distinction between those activities in which all people might physically participate and those events which were public spectacles for the entertainment of spectators. When Gardiner states that "the Romans of the Republic despised athletics," he seems to be implying that the "free citizens" of Rome had no desire to be athletes. However, at the same time, they may have fully desired to see hirelings perform in an athletic-like manner. At least the Roman games were athletic, by comparison with the modern concept of athletics, in that they were designed to attract and please spectators.

Following a discussion of the events of the Roman Republic and Empire, historians of the Western World sometimes lead one to believe that physical games were virtually non-existent until certain changes took place in 17th century England. However, the record shows that this was not actually the case. Following is an observation of what might be called sporting-like activities in 14th century England:

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[1] E. Norman Gardiner, **Athletics of the Ancient World** (Oxford, England: At The Clarendon Press, 1930), p. 1.

[2] **Ibis.**, p. 117.

[3] **Ibid.**, p. 119.

> . . . the boys and young men would play at tilting, wrestling, football or other games of ball, not only in the fields but in the streets, though as time went on efforts were made to suppress street games; wrestling was forbidden in St. Paul's churchyard; 'bars' or 'prisoner's base,' and games that involved the annoyance of passers-by were prohibited in Westminster when parliament was sitting, and football was constantly denounced, with good reason, as it was not an orderly game with a fixed number of players, definite rules and regular goals, but a wild struggle between opposing parties to force the ball through the streets from one end of the town to the other, frequently resulting in broken legs. Bowls and quoits, played down the streets, doubtless relieved life of its monotony, but also occasionally relieved an unwary pedestrian of his life altogether, and were, therefore, not encouraged in towns. In the winter, when the marshes were covered with ice, the young men would fasten to their feet rough skates made of the leg-bones of animals, and, propelling themselves with iron-shod poles, shoot across the ice, tilting to one another, to the breaking of many heads and limbs.[4]

This description of physical, play-like activities would indicate that they were not within the realm of athletics, at least not as we understand the concept today. They did demand physical prowess and they were competitive, but the structure was missing. The fact that football was called a "wild struggle" and "not an orderly game" symbolizes the idea that it was not athletics.

The Italian Renaissance is usually cited by physical education historians as a period in history which not only marked the rebirth of interest in art and classical literature, but also the revival of physical activity as an organized part of an educational program. In this regard, the theory and applied efforts of Vittorino da Feltre are frequently cited as a classic example.[5] However, there is no particular evidence which would indicate that da Feltre contributed to the evolution of athletics as a concept. His educational thrust is a significant factor in the history of physical training.

Dennis Brailsford[6] has examined the status of sport in England between 1560 and 1714. His analysis of Elizabethan and Stuart ideas on sport leads to the conclusion that the influence of Italian humanism was most markedly evident. Athletics was not a significant activity during these years and had not really emerged as a concept. Of course the English people have always employed the term athletics in a different manner than we are using it here to identify the concept under consideration. In England, athletics refers to track and field activities. But that is beside the point. Forget the name "athletics" for the time being. Assuming there is a wide range of possibilities centering around the concept of sport, the English did not highly structure their sport during the time of Elizabeth and the Stuarts.

As with almost any generality of this sort, exceptions can be found. For example, Brailsford offers the following account of the sporting games which were played as part of the church festivals during this period:

> In spite of the puritan frowns that were beginning to be cast towards the feast-day sports, with their Catholic associations, the church festivals continued to be observed widely. The winter festival of Christmas was pre-eminent as the indoor celebration, but as an occasion for outdoor sport, Shrovetide held first place. A spring festival, a celebration of survival after the long winter, it produced games which were usually boisterous and marked by contest and conflict: individuals and groups pitted their strength in the struggle for what had once been a fertility prize for their cattle, their crops, or their women. The Shrovetide sports show more uniformity than those found at any other festival and records of them come from all parts of the country.

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[4] Quoted from "Piers Plowman" by Salzman in **English Life in the Middle Ages**, pp. 82-83.

[5] Dennis Brailsford, **Sport and Society: Elizabeth to Anne** (London, England: Routledge and Kegan Paul, 1969), p. 11.

[6] **Ibid.**, pp. 1-279.

> Football, in various modes, was the most widespread of the Shrove Tuesday games, and also the one which attracted most comment. In some places, including the University towns where colleges seem to have already developed more or less regular 'teams,' the game must have escaped from its exclusive association with a particular feast (a necessary first step for the development of any folk sport from the primitive state), but elsewhere it could only have been an annual event at most. The damage to life and property that it usually risked would have otherwise been unbearable. It was still essentially a sport of mass participation; a riot of apprentices or an affray for the peasants. From Elyot onwards its reputation among the literate was low; it was not a game for the civilized.[7]

The above account might be considered an exception because there is some evidence of structured sport, such as the reference to colleges having "already developed more or less regular teams." However, one is still left with the general impression that the sporting activities of the 17th century English were still primarily characterized by spontaneity and a play-like quality rather than by formality and structure. The continuum between sport and what we are calling athletics is largely a continuum representing degree of organization. As an activity becomes more athletic-like, it tends to be more structured, involving such matters as sponsorship, coaches, officials, and spectators. When athletics is found in its more complete form, spectators are extremely important because they ultimately represent the raison d'etre. Thus, a premium on winning emerges because spectators are generally most impressed by a winning performance when it involves their team or an individual with whom they identify.

The next major step in the development of athletics as a concept occurred in 18th century England. As noted earlier, the English enjoyed their sport long before that time, but in the 1700's they began to increase the organization and structure. This was the century of the so-called "new wealth," associated with the agricultural, industrial, and communications revolutions. Thus it was not surprising that sport should become more highly organized. As one example, cricket clubs were organized. The 18th century also marked the first interscholastic contests among the English "public" schools such as Eton, Harrow, and Winchester.

Even though these changes might represent a step in the development toward athletics, the concept of athletics as we understand it today had not yet crystallized. The English did not refer to their organized sport as athletics and with good reason. Even to this day, the English prefer to conduct their sports in a more leisurely manner than that which can properly be associated with the concept of athletics.

If one eliminates the earlier seeds of the athletic enterprise as noted in the games of the Greeks and Romans, athletics is largely a 20th century concept. Furthermore, it is very much of an American idea. It is an idea which achieved popularity through the medium of the educational system in the United States, particularly in higher education.

When one searches for a beginning of the athletic enterprise in the United States, it is a bit difficult to pinpoint the actual beginning. Part of this is due to the abstract nature of athletics, in spite of the three characteristics of the concept which were identified earlier in this paper. To point out one of the complications, Dulles notes that spectator sports were very prominent in the United States during the first half of the 19th century.

> Crowds ranging from twenty to fifty thousand, made up of all members of society, were consequently turning out as early as the 1820's for widely heralded horse-races, for the regattas held at cities along the Atlantic seaboard, and for the grueling five and ten-mile races of professional runners. The available stands would be packed, the overflow spreading to every point of vantage. A contemporary newspaper reporting on a foot-race in 1835 declared that "it would have required the amphitheatre of Titus to have accommodated all."[8]

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[7] **Ibid.**, p. 53.

[8] Foster Rhea Dulles, **A History of Recreation: America Learns to Play**, 2nd Edition. (New York: Appleton-Century-Crofts, 1965), p. 137.

From one standpoint, these so-called "spectator sports" might be considered to be synonymous with athletics. For example, those events cited by Dulles, namely horse races, regattas, and foot races, at least approximate having the dimensions which we have circumscribed for athletics. Even a horse race demands physical prowess on the part of the jockey as well as the horse. However, the major difference between these earlier spectator sports and athletics as we know it today is probably to be found in the third dimension—that of structure. The first real attempts to highly organize this thing which we call "sport" were found in the United States during the second half of the 19th century and they reached fruition during the 20th century, particularly the 1920's. What are some of the particulars which would tend to support that generalization?

Several athletic-like organizations and/or events were inaugurated during the period between 1850 and 1900. Following is a partial listing:

1852	the first intercollegiate contest in the United States—a rowing race between Yale and Harvard
1859	first intercollegiate baseball game between Williams and Amherst
1867	first conference of the National Association of Baseball Players
1868	New York Athletic Club was formed
1869	first intercollegiate football game in the United States between Princeton and Rutgers
1875	formation of the National Bowling League
1876	formation of the Intercollegiate Football Association
1879	National Association of Amateur Athletics was organized—later became the AAU
1879	first national archery tournament was held in White Stocking Park, Chicago
1881	American Lawn Tennis Association was organized
1883	formation of the Intercollegiate Athletic Conference
1886-87	appearance of the first country clubs in New York and Boston
1891-92	basketball was initiated by Naismith at Springfield
1895-96	"Western Conference" was formed—became popularly known as the "Big Ten"
1896	United States participated in the revival of the Olympic Games in Athens, Greece[9]

Many people are inclined to associate the concept of athletics exclusively with interscholastic or intercollegiate programs. The above listing of dates would certainly indicate that the colleges did play a major role in extending the concept of sport by making it much more highly organized than it had been in this or other countries. But the concept of athletics need not be restricted to schools and colleges. In terms of the development which has been chronicled, the formation of the New York Athletic Club is one example that athletics extends beyond the boundaries of schools and colleges.

Lucas[10] has referred to "the incredible athletic phenomena of the 1870's." His statement seems quite appropriate when one notes the athletic organizations which were formed and the athletic events which were initiated during that period of time. It is interesting to note that as early as 1874, and probably much earlier, the American sports were referred to as "athletic sports" and that the term designated something more than just track and field events. As one example, an editor for the **Amherst Student** recognized that "athletic sports" were "now the theme of universal discussion and interest." However, he deplored the fact that "baseball and boating are about the only athletic sports practiced here."[11]

The reference to baseball has further significance in that it became increasingly evident during the next fifty years that Americans were developing their own form of popular spectator sports which were to provide the most integral part of the concept of athletics as we understand it in the United States today. Football and basketball joined baseball as the big three of the athletic scene in the United States. For whatever reasons Americans particularly chose to extend their sporting interests to focus on athletic contests in baseball, football, and basketball is beyond the scope of this paper. Suffice it to say that this did roughly occur between 1890 and 1920, and this marks the most recent stage in the development of athletics as a concept. Since the 1920's the record has been one of primarily perpetuating and accelerating these interests and only within the past few years has there even been the slightest indication that we may be embarking on a new era and another stage in the evolution of athletics as a concept. Jack Scott's book, **The Athletic Revolution**,[12] may well be symbolic of a change from the athletic frame of reference which has dominated the American scene from 1920 to 1970.

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[9] Most of these dates were obtained from Arthur Weston, **The Making of American Physical Education** (New York: Appleton-Century-Crofts, 1962).

[10] John A. Lucas, "A Prelude to the Rise of Sport: Ante-Bellum America, 1850-1860," **Quest** XI, "Our Heritage," December 1968.

[11] **Amherst Student**, October 17, 1874, p. 130.

Of the "big three" which seem to symbolize the American concept of athletics, baseball was the first to emerge as both a participant and a spectator sport. As early as 1858 approximately two thousand persons paid admission to see a game played at the Fashion Race Course.[13] By the 1890's it was rather generally recognized as the "national game." One of the interesting features about baseball was that it had a relatively quick emergence as a professional sport. This may be one of the reasons that at one time it was popular to compare professional baseball with collegiate football and high school basketball, as the leading spectator attractions. In summarizing the status of basketball, Dulles makes the following comparisons with football and baseball:

> A more interesting development was the rapidly growing popularity of the new indoor winter sport of basketball. It has a unique status. It is the only popular American game that is not derived from some sport whose origins may be clearly traced to England. Baseball and football have been thoroughly Americanized by a slow process of evolution, but basketball sprang fully developed on a world which little realized that in time it was to be played by more persons (including boys and girls) and draw larger numbers of spectators than any other sport—not excepting either professional baseball or intercollegiate football.[14]

Later, he stresses the schoolboy influence of basketball:

> Basketball—both amateur and professional—has risen high in popularity. It has come to almost rival football in the college world, but its most spectacular growth has been at the high school level.[15].

Almost everyone who lives in the United States today recognizes that the comparisons of football, basketball, and baseball in relationship to professional collegiate, and scholastic status is not the same as it was in 1930. Football has evolved as an extremely popular professional sport. Basketball has also become more prominent on the professional level, while maintaining its status at the high school and collegiate levels. Baseball is still among the more popular attractions in professional sport although some people have speculated that it is losing ground. But, aside from such relative comparisons, the status of athletics in the United States has not appreciably changed since the 1920's. The "big three" still symbolize the concept of athletics which is either consciously or subconsciously espoused by millions of Americans. As is true of almost any generality, there are exceptions, such as Bostonians directing their athletic fervor toward hockey rather than basketball. The one constant during the past fifty years is that Americans, as a group, have supported the idea that there is a place for highly structured sport in which winning represents the pinnacle of achievement. Emphasis which has been placed on the rise and fall of the coach is consistent with the evolution of athletics from 1920 to 1970.

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[12] Jack Scott, **The Athletic Revolution** (New York: The Free Press, 1971).

[13] Dulles, **op. cit.**, pp. 188-189

[14] **Ibid.**, p. 264

[15] **Ibid.**, p. [illegible]

A POSTSCRIPT

Where do Americans stand in relationship to the idea of athletics in 1972? Within the past few years there have been signs that athletics has reached its peak and may be headed back in the other direction, that is, toward the concept of sport in the purer sense. As one example, students are more and more questioning the expenditure of student fees for athletic purposes. They are demanding and in many cases receiving greater representation and more active roles on athletic councils. It is still a bit early to say whether or not we have moved beyond the heyday of athletics. This we know with more certainty. If athletics is to continue to flourish during the 1970's it must be recognized for what it is—an activity which demands physical prowess, places a premium on victory, and is structured to please spectators. Regurgitation of such sweetheart characteristics as athletics serving as a laboratory for democratic living will only add to the demise of the concept and subsequent elimination of programs.

Sport and Exercise in the Lives Of Selected Colonial Americans: Massachusetts and Virginia, 1700-1775

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Early historians implied that the struggle of the American colonists in the wilderness was so demanding that sport was practically nonexistent. As additional evidence in the form of diaries, letters, and journals became available indicating discrepancies between actual conditions and historians' treatment, it became apparent that some colonists did participate in sport. Then later historians accused the Puritan religion of preventing sport in the North, while fewer religious restrictions in the South supposedly resulted in much wider sports participation. As twentieth century historians all but erased the myth of "gloomy" Puritan New England, there remained a difference of opinion as to the role of sport in colonial America, contrasting the participation of the Puritanical North with that of the fun-loving South.

This research examined the role that sport played in colonial life, contrasting differences in this role between northern and southern colonies. Because historians seemed to consider the greatest difference in sports participation to be between New England and the southern colonies, one colony from each region was selected for examination. Massachusetts and Virginia were the largest colonies, relatively equal in population, and prominent politically and economically.[1]

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[1] In 1700 the two largest colonies were Massachusetts, 55,941, and Virginia, 58,560. No other colonies approached these two in population, with the next largest colonies, Connecticut and Maryland, having 25,970 and 29,604 inhabitants respectively. Massachusetts was steadily outgrown by her southern counterpart as population estimates for 1770 were Massachusetts, 235,308 and Virginia 447,016. See **The Statistical History of the United States from Colonial Times to the Present** (rev. ed., Stamford, Conn.: Fairfield Publishers, Inc., 1965), p. 756.

Residents of or visitors to these two regions were thus considered potential subjects for examination.

A study of word usage indicated that colonists at the beginning of the eighteenth century did not commonly use the word **sport**. Such activities that we today classify as sport were usually called diversions, pastimes or recreations.[2] In this study the word **sport** carried with it the implications of modern society; Eyler's definition was used:

> . . . the term **sports** will be considered in a broad general sense and will embrace all those activities which require physical performance (movement), involve some degree of skill and/or condition and embody a pattern of performance and/or a set of recognizable rules.[3]

Using a segment of Hunter's definition, exercise was considered to be "bodily exertion for the sake of health."[4]

Many historians have described colonial Massachusetts as void of sport. However, the results of researching diaries, letters and personal papers indicated that sport did, in fact, exist. Throughout his life Benjamin Franklin enjoyed telling of his humble birth and youthful poverty in Puritan Boston. Some historians have pictured Franklin exhibiting aspects of the Puritan heritage that his Massachusetts background provided.

Franklin described his boyhood:

> I . . . had a strong Inclination for the Sea; but my Father declar'd against it; however, living near the Water, I was much in and about it, learnt early to swim well, & to manage Boats, and when in a Boat or Canoe with other Boys I was commonly allow'd to govern, especially in any case of difficulty; . . .[5]

Van Doren called Benjamin Franklin the first American athlete on the basis of his swimming ability.[6] The best illustration of this skill occurred during a visit to London at the age of twenty when he taught some young friends to swim and later recorded his pleasure in their admiration of his skill and grace.[7] In his educational proposals, Franklin later in his life suggested that swimming be used as a form of exercise for students.[8]

The Massachusetts of Benjamin Franklin's youth was dominated by religion. Men who accepted the work of God as their calling often worked at their profession with a zest that approached fanaticism. Prominent among this group was Cotton Mather, described as "perhaps the least loved and at the same time most interesting of New England's early personalities."[9] Mather approved of sports and games for children, but he seldom missed an opportunity for religious reflection:

> There is an Ingenuity, which I may use, to insinuate the Maxims and Lessons of Piety, into the Minds of my younger Children. I would observe what Games

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[2] Cotgrave, 1611, mentioned **sporte**, meaning a hand-basket; see Randle Cotgrave, comp., **A Dictionarie of the French and English Tongues** [1611] (Menston, England: The Scolar Press Limited, 1968), no page. But Marvin H. Eyler noted that the term sport was derived from the word **disport**, used as early as 1303. See Marvin H. Eyler, "Origins of Contemporary Sports," **The Research Quarterly of the American Association for Health, Physical Education, and Recreation**, XXXII, No. 4 (December, 1961), p. 481. In 1757 James Buchanan defined sport as "1. Play or pastime. 2. Hunting, fowling, fishing, &c. 3. Diversion. 4. Measures or way of proceeding. 5. A basket or panier used by mendicant friars"; see his **A New English Dictionary** [1757] (Menston, England: The Scolar Press Limited, 1967), no page. By 1780 Thomas Sheridan noted **sport** was, "play, diversion, game, frolic, and tumultuous merriment; mock, contemptuous mirth; that with which one plays; play, idle gingle; diversion of the field, as of fowling, hunting, fishing"; see **A General Directory of the English Language** [1780] (Menston, England: The Scolar Press Limited, 1967), II, no page.

[3] Marvin H. Eyler, "Origins of Some Modern Sports" (unpublished Ph.D. dissertation, University of Illinois, 1956), p. 17.

[4] Milton Dial Hunter, "A Dictionary for Physical Educators" (unpublished Doctoral dissertation, Indiana University, 1966; Ann Arbor, Michigan: University Microfilms, 1967), p. 157.

[5] **Benjamin Franklin's Memoirs**, ed. by Max Farrand (Berkeley: University of California Press, 1949), p. 20.

[6] Carl C. Van Doren, **Benjamin Franklin** (New York: The Viking Press, 1938), p. xi.

[7] Franklin, **Benjamin Franklin's Memoirs**, pp. 122-24.

[8] **The Papers of Benjamin Franklin**, ed. by Leonard W. Labaree (12 vols.; New Haven: Yale University Press, 1959-1968), III, 402.

[9] **The Diary of Cotton Mather D. D., F. R. S. for the Year 1712**, ed. by, introduction and notes by W. R. Manierre, II (Charlottesville: The University Press of Virginia, 1964), p. xiv.

> and Sports they are upon, when the Hours of Recreation recur unto them. And I would by way of occasional Reflection, as plainly as tis possible, mind them of those pious Instructions, which the Circumstances of their play may lead them to think upon.[10]

Cotton Mather, who occasionally fished, used fishing as a sermon topic, noting, "To **catch Fish** is an **Employment** whereby many support themselves, a **Diversion** wherewith many refresh themselves; in managing this **Fishery** what an opportunity for many useful Reflections!"[11]

Ebenezer Parkman was a minister of Westborough, Massachusetts, and his diary was considered a "virtually unequalled record of the social history of a typical eighteenth century New England town . . . ."[12] Hunting and fishing were acceptable activities for the country parson, and in his diary he described these outings as well as other leisure activities. The diaries of Samuel Sewall[13] and Edward Holyoke[14] described some limited sports participation by staunch church supporters in colonial Massachusetts.

John Adams, colonial lawyer and founding father, expressed the following sentiments:

> Exercise invigorates, and enlivens all the Faculties of Body and of mind. It arouses our Animal Spirits, it disperses Melancholy. It spreads a gladness and Satisfaction over our minds and qualifies us for every Sort of Business, [sic] and every Sort of Pleasure.[15]

John Adams spent his early years in Massachusetts in much the same manner as other New England youth of the eighteenth century. Adams described the trend of his boyhood days:

> I spent my time as idle Children do in making and sailing boats and Ships upon the Ponds and Brooks, in making and flying Kites, in driving hoops, playing marbles, playing Quoits, Wrestling, Swimming, Skaiting and above all in shooting, to which Diversion I was addicted to a degree of Ardor which I know not that I ever felt for any other Business, Study or Amusement.
>
> My Enthusiasm for Sports and Inattention to Books, allarmed my Father, and he frequently entered into conversation with me upon the Subject.[16]

One activity that gained in importance as John Adams advanced in years was horseback riding. Later in Adams' career, his extended stay in Philadelphia with the Continental Congress prompted him to write his wife Abigail, asking that she send him horses. He added, "The sooner they come, the more agreable to my Wishes, and the better for my Health. I can live no longer, without Riding."[17]

John Adams' diaries seldom mention walking, even though he apparently walked almost daily for exercise. Adams summarized his position on exercise and health and the values of walking:

> Lost health is not easily recovered.—Neither medicine nor diet nor any thing would ever succeed with me, without exercise in open air; and although riding in a carriage, has been found of some use, and on horseback still more; yet none of these have been found effectual with me in the last resort, but walking.—Walking four or five miles a day, sometimes for years together,

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[10] **Diary of Cotton Mather**, ed. by Worthington Chauncey Ford (2 vols.; New York: Frederick Ungar Publishing Co., 1911), II, 144.

[11] Cotton Mather, **The Christian Philosopher: A Collection of the Best Discoveries in Nature with Religious Improvements** [1721] (Gainesville, Fla.: Scholars' Facsimiles & Reprints, 1968), p. 179.

[12] Ebenezer Parkman, "The Diary of Ebenezer Parkman, 1719-1728," ed. by Francis G. Walett, **Proceedings of the American Antiquarian Society**, LXXI, Part 1 (April, 1961), 93.

[13] Samuel Sewall, **Samuel Sewall's Diary**, ed. by Mark Van Doren (New York: Russell and Russell, 1963.)

[14] George F. Dow, ed., **The Holyoke Diaries, 1709-1856** (Salem: The Essex Institute, 1911).

[15] **Diary and Autobiography of John Adams**, Vol. I: **Diary 1755-1770**, ed. by L. H. Butterfield (4 vols.; Cambridge: The Belknap Press of Harvard University Press, 1961), p. 27.

[16] **Diary and Autobiography of John Adams**, Vol. III: **Diary 1782-1804, Autobiography Part One to October 1776**, ed. by L. H. Butterfield (4 vols.; Cambridge: Belknap Press of Harvard University Press, 1961-1962), p. 257.

[17] John Adams, **Adams Family Correspondence**, ed. by L. H. Butterfield (2 vols.; Cambridge: The Belknap Press of Harvard University Press, 1963), II, 84.

> with a patience, resolution and perseverance, at the price of which, many persons would think, and I have been sometimes inclined to think, life itself was scarcely worth purchasing. . . .[18]

While John Adams was helping to control the destiny of the colonies, the majority of Massachusetts inhabitants went about their business in relative obscurity. One such individual, who kept a diary, was businessman John Rowe. Fishing dominated the mention of sport in John Rowe's diary. During May, June and July of 1765 Rowe noted he went fishing seventeen times. In a similar period the next year, he recorded thirteen fishing expeditions. As the revolution approached, Rowe's fishing time appeared to diminish, although he still made an occasional fishing visit to Flax Pond.[19] When John Rowe mentioned fishing he usually commented on his success or lack of it, and a typical notation was "had very Good Sport fishing."[20] If he did not use the word **sport** to describe his activity, he wrote "—went fishing—had very fine Diversion—."[21]

Many historians have described colonial Virginia as a fun-loving colony that fostered sports participation. The following results of researching diaries, letters and personal papers substantiated the existence of various sports, but perhaps historians overemphasized this aspect of Virginia life.

William Byrd II commanded a Virginia estate that included twenty-six thousand acres. One point that Byrd made clear in his diaries was an intense interest in his health. William Byrd illustrated his belief in the values of regular physical activity by his use of a series of exercises he called his dance. Byrd recorded during nine months of 1709 the performance of these calisthenics ninety-six times. The next year, 1710, Byrd mentioned exercising 154 times. A decade later Byrd still appeared to exercise approximately the same number of times yearly. The next available diary records, 1740 and 1741, indicated a considerable increase in Byrd's performance of exercise.

It was unfortunate that Byrd did not elaborate on the routine he engaged in, but never did he go into any more detail than to say he danced his dance. Some days Byrd performed this ritual twice, and occasionally he noted that Mrs. Byrd joined him in the exercise.[22] Some evidence as to the physical demands of Byrd's dance was provided in an entry stating that immediately after he "rogered" his milliner, he danced his dance.[23]

Byrd was also interested in conditioning and certainly some of the hikes he described were evidence of his capability. He offered the following advice on stimulants and walking:

> Though practice will soon make a man of tolerable vigor an able footman, yet, as a help to bear fatigue, I used to chew a root of ginseng as I walked along. This kept up my spirits and made me trip away as nimbly in my half-jack boots as younger men could do in their shoes.[24]

Byrd recorded a competitive walking event when "Harry W-1-s walked from hence to Jimmy Burwell's and back again in less than three hours for a wager of two guineas, but was almost spent."[25]

Cricket was not a popular colonial sport, but in 1710 Byrd visited a neighbor and recorded, "We played at cricket and I sprained my backside."[26] Byrd played cricket at least four times in 1709, and eighteen times the next year. Sometime after 1710 Byrd apparently discontinued playing cricket, as later diaries do not mention the sport.

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[18] John Adams, **Diary 1782-1804, Autobiography Part One to October 1776**, p. 144.

[19] **Letters and Diary of John Rowe, Boston Merchant, 1759-1762, 1764-1779**, ed. by Ann Rowe Cunningham (Boston: W. B. Clarke Company, 1903), p. 105.

[20] **Ibid.**, p. 83.

[21] **Ibid.**, p. 86.

[22] **The Secret Diary of William Byrd of Westover, 1709-1712**, ed. by Louis B. Wright and Marion Tinling (Richmond: The Dietz Press, 1941), p. 240. Hereafter cited as **Secret Diary**.

[23] William Byrd, **The London Diary (1717-1721) and Other Writings**, ed. by Louis B. Wright and Marion Tinling (New York: Oxford University Press, 1958), p. 192. Hereafter cited as **London Diary**.

[24] **The Prose Works of William Byrd of Westover**, ed. by Louis B. Wright (Cambridge: The Belknap Press of Harvard University Press, 1966), p. 291.

[25] Byrd, **Secret Diary**, pp. 434-35.

[26] **Ibid.**, p. 144.

Billiards was a popular sport to William Byrd. For example, in 1709, Byrd recorded playing billiards sixty-one times in ten months. His 1718 and 1720 diaries revealed a decrease in billiards activity to sixteen and fifteen times yearly. Problems encountered in playing billiards were few, but once Byrd noted, "We played again at billiards till we lost one of the balls."[27] Another time Byrd recounted, "We played at billiards and I by accident had almost lost some of my fore teeth by putting the stick in my mouth."[28] It seemed that billiards held some strange attraction for Byrd as he wrote, "In the afternoon my wife and I played at billiards and I laid her down and rogered her on the [trestle]."[29] In the same vein he recorded having intercourse with his wife and said, "It is to be observed that the flourish was performed on the billiard table."[30] No attempt will be made to justify such activity as sport, even though Byrd used the billiard table as the field of play.

Byrd did not mention the sport of bowling in his early diaries, but by 1718 he was recording participation in the sport. By 1739, when his diary began in August, bowls had become one of Byrd's most frequently practiced activities. In August-September of 1739 Byrd bowled thirteen times. The next year, during the four month span of May through August, he mentioned bowling thirty times. In 1741, during a similar time span, Byrd bowled on twenty-five occasions.

Many considered horse-racing to be the most popular of colonial sports, but William Byrd gave it little attention, although he occasionally sent a bet with his family.[31] Byrd's attitude toward horse races was illustrated by his statement, "I denied my man G-r-1 to go to a horse race because there was nothing but swearing and drinking there."[32]

Historians sometimes exaggerated George Washington's talents. His sporting ability, the strength of his throwing arm,[33] horseback riding endurance,[34] and climbing prowess[35] were examples. Examination of Washington's diaries revealed that his favorite sport was hunting. In 1768 Washington recorded sixty-three hunting outings, fifty of which were fox hunts. The strenuousness of this type of hunting and horseback riding was determined by the amount of time spent in the hunt. It was customary for Washington to note, "Started a Fox ab. 10, Run him till 3 and lost him."[36] As the revolution neared, George Washington found demands upon his time greatly increased, and hunting diminished in importance. Whereas it was apparent that Washington considered hunting to be a sport, no such conclusions can be drawn on behalf of fishing. Although a few notations about fishing for sport existed, the bulk of references were to Washington's merely checking the sein.

The efforts and achievements of Thomas Jefferson place him near the top of the list of contributors to the development of the United States. As Jefferson matured he faced a difficult decision regarding the path of his future:

> From the circumstances of my position I was often thrown into the society of horse racers, card players, fox hunters, scientific and professional men; and of dignified men; many a time have I asked myself in the enthusiastic moment of the death of a fox, the victory of a favorite horse, the issue of a question eloquently argued at the bar or in the great council of the nation, well, which of these kinds of reputations should I prefer? That of a horse jockey? A fox hunter? An orator? Or the honest advocate of my country's rights.[37]

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[27] **Ibid.**, p. 123.

[28] **Ibid.**, p. 437.

[29] **Ibid.**, p. 275.

[30] **Ibid.**, p. 211.

[31] **Another Secret Diary of William Byrd of Westover, 1739-1741**, ed. by Maude H. Woodfin, trans. by Marion Tinling (Richmond: The Dietz Press, Inc., 1942), p. 107.

[32] Byrd, **Secret Diary**, p. 75.

[33] Edward Everett, **The Life of George Washington** (New York: Sheldon and Company, 1860), p. 32.

[34] Paul Leicester Ford, **The True George Washington** (Philadelphia: J. B. Lippincott Company, 1900), p. 47.

[35] **Ibid.**

[36] **The Diaries of George Washington**, ed. by John C. Fitzpatrick (4 vols.; Boston: Houghton Mifflin Company, 1925), I, 247.

[37] Bernard Mayo, ed., **Jefferson Himself** (Boston: Houghton Mifflin Company, 1942), p. 7.

Thomas Jefferson's view of the values of exercise was best seen in his advice to others. In making academic recommendations to Peter Carr, Jefferson also advised devoting two hours a day to exercise.[38] He recommended hunting because he believed use of the gun would give moderate body exercise as well as "boldness, enterprize, and independence to the mind."[39]

To Thomas Jefferson, walking was the best possible exercise and he advised that hours later in the day be devoted to this purpose because it was the best time to spare from studies. However, Jefferson also suggested that a short morning walk would produce "good effects in the animal economy."[40] Jefferson revealed part of his exercise philosophy as he commented, "Dispositions of the mind, like limbs of the body, acquire strength by exercise."[41] He used another familiar statement regarding the values of exercise as he wrote, "A strong body makes the mind strong . . . ."[42] Jefferson's beliefs on the values of exercise were not limited to the male. In 1787 he wrote his daughter, Martha, emphasizing that she continue her exercise because exercise was necessary for health and "health is the first of all objects. For this reason if you leave your dancing master for the summer, you must increase your other exercise."[43]

Travelers to the colonies often kept diaries offering interesting commentary on colonial sport. Englishman Nicholas Cresswell visited Virginia late in the colonial period and commented on various leisure activities.[44] John Harrower's diary described some limited sport in his life as an indentured servant in Virginia.[45] Philip Fithian also came to Virginia and in a daily journal recorded his impressions of life as tutor to the children of a prominent Virginia planter. One competitive sport in which Fithian participated was foot racing. He recorded in his journal the following victorious, if somewhat trying sports event:

> In the Evening I ran a Foot Race with Ben & Harry for exercise, & a prize of ten applies to the winner. We ran from the School-House round the stable, & kitchen & Great-house which Distance is about 70 Rod—I cam out first about on a Rod; but almost wholly spent; I went to my chamber and lay down, sick, fainty, & quite distressed. I puked several times . . . .[46]

Fithian appeared to enjoy his life as a tutor in Virginia, but he did express concern about his pupil's lack of seriousness as he noted that after school "they all find places of Rendesvous so soon as the Beell rings, and all seem to choose different Sports![47]

Sports most frequently mentioned by inhabitants of both Massachusetts and Virginia were hunting and fishing. Other sporting events described included horse-racing, skating, swimming, wrestling and shooting matches. The walking contest William Byrd observed and the sickening foot race of Philip Fithian were examples of miscellaneous competitive sports. The only subject who played billiards to any extent was William Byrd of Virginia. Byrd also commented on bowling, cricket, fencing, and archery—activities that were seldom mentioned by other subjects. The main source of diversion for the colonists appeared to have centered around home entertainments celebrating birthdays, holidays, visits and weddings. There were few spectator sports during the colonial period, with horse-racing and cock-fighting the only two that received much notice.

Hunting was permissible and practiced as sport in both colonies. On the basis of evidence obtained, hunting appeared to have been the colonists' most popular sport. There were few restrictions, legal or moral, placed on this activity. Although the Massachusetts subjects did not appear as enthusiastic about hunting as the Virginians, they could participate without religious restrictions. Fishing appeared more popular in Massachusetts than in Virginia, as definite religious acceptability of fishing as sport was noted. Writings mentioning fishing in Virginia usually described the act of food provision.

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[38] **The Papers of Thomas Jefferson**, ed. by Julian P. Boyd (17 vols.; Princeton: Princeton University Press, 1950-1965), VIII, 407-08.

[39] **Ibid.**

[40] **Ibid.**

[41] **Ibid.**, I, 76-77.

[42] **Ibid.**, VIII, 407-08.

[43] **Ibid.**, XI, 250-51.

[44] **The Journal of Nicholas Cresswell 1774-1777** (New York: The Dial Press, 1924).

[45] **The Journal of John Harrower: An Indentured Servant in the Colony of Virginia, 1773-1776**, ed. by Edward Miles Riley (New York: Holt, Rinehart and Winston, Inc., for Colonial Williamsburg, 1962), p. xix.

[46] **Journal and Letters of Philip Vickers Fithian, 1773-1774**, ed. by Hunter Dickinson Farish (Williamsburg: Colonial Williamsburg, Incorporated, 1943), pp. 79-80.

[47] **Ibid.**, p. 49.

The most important aspect of horse races appeared to have been the sociability surrounding these events. Virginians held race weeks on a regular basis coupled with fairs. Colonists eagerly anticipated these race weeks, usually held annually or biannually, perhaps more for the companionship, entertainment, food and drink than for sport. All Virginians were not enthusiastic about horse-racing, however. William Byrd seemed to care little for the sport and gave the activity small notice in his diaries. Thomas Jefferson expressed keen interest in horse-racing in his youth, but made no mention of attendance later in life. There were horse races in Massachusetts even though none of the subjects in this study mentioned their attendance.

Some eighteenth century colonists adhered to the concept that a physically fit body was instrumental in life, and that exercise was vital to fitness. No diarists located spoke against exercise; either they were advocates or they were silent on the topic. Of the Massachusetts subjects, Benjamin Franklin and John Adams believed most strongly in the values of exercise. Franklin emphasized several benefits to be derived, but health was his primary concern. Adams agreed that exercise improved health, better enabling one to do his chosen work. Virginians also believed in exercising, and Thomas Jefferson often prescribed it for others. William Byrd was most methodical in exercising as he followed a calisthenic regimen he called his "dance."

Contrary to the belief of some historians, sport was permitted in colonial Massachusetts, and in some cases even encouraged. Because some sports were legislated against, and because all sports were discouraged on Sundays, some historians appeared to conclude that Puritans were against sports. The question raised about Virginia sport was not one of existence, but rather one of the frequency or extent of participation. Evidence obtained in this study indicated that historians perhaps exaggerated the role that sport played in the southern colonies. Because most of the prominent spokesmen for and about the South lived on or visited the large plantations, plantation life dominated the scene in historical comment on the South. Large plantations actually represented only a small segment of society. The southern colonial plantation owner had more leisure available to him than did other subjects, but surprisingly he appeared to use it only sparingly for sport.

Commercialism in College Athletics, 1920-1940: A Case Study

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The scene is a small teacher-training normal school in Oshkosh, Wisconsin. The date is 1924. The subject is a letter from a non-high school graduate to President Brown of Oshkosh inquiring if his athletic abilities were sufficient to get him into school. The letter read:

> Dear President Brown:
>
> I have a desire to enter college. I did not have an opportunity to go to high school, but I graduated the public school.
>
> What preparatory courses do you offer as to be able to enter. I have received offers from Beloit College, Lacrosse and Whitewater Normals, but I haven't considered them as yet because I have been recommended to go here because of the coaching you offer. I play basketball, football and baseball.
>
> Again I wish to state I have a great desire to enter college. I am trying to find out where I can get a short course which will offer me a chance to go to school and I prefer Oshkosh Normal.
>
> But I haven't any funds to carry me thru school. What chances are there for a fellow without any funds? Are there any chances of work. Will you please send me advice as to what I should do?[1]

President Brown of Oshkosh replied: "If you have not attended high school, I doubt the possibility of you entering here. We do not admit non-high school graduates except in very exceptional cases. . . ."[2]

It happened to be a hypocritical statement, for President Brown had been doing just that (recruiting non-high school graduates for athletics) throughout his presidency so that highly qualified athletes—but unqualified students in terms of previous education—could play for the highly successful Oshkosh Normal athletic teams. He had even allowed professional players from the nearby Green Bay Packers to play on the Oshkosh football team. Only pressure from other normal school presidents, opposition from a state organization of school superintendents, and a possible non-appropriation of funds from the Wisconsin State Legislature had prevented President Brown from accepting the young athlete as an Oshkosh student.[3]

This is an example of what was occurring in the small, female-dominated normal schools of Wisconsin. It appears to have been a reflection of the intercollegiate scene across the nation in the 1920's and later.

This paper is a case study of commercialism in athletics between World War I and the Second World War in the Wisconsin normal schools which became teachers colleges during this period. The Wisconsin normal schools in the 1920's were composed of 10 teacher training institutions containing about 500 students each, two-thirds of which were women.

For the Wisconsin normal schools, as for American colleges generally, the 1920's and 1930's resulted in numerous criticisms of commercialism and professionalism in athletics, probably more than in any other period. Following World War I numerous observers saw an intensification of the commercial spiral in athletics which included increased crowds and gate receipts, enlargement of stadia, increased pressure to win, and the spread of the proselytizing of players.

There was criticism from all quarters of this spiraling process of athletic commercialism throughout the nation. In 1926, the Carnegie Foundation for the Advancement of Teaching authorized an indepth study of intercollegiate athletics following requests from such influencial bodies as the Association of American Colleges, the Association of College and Secondary Schools, and the N.C.A.A. This study, the Carnegie Report, was published on the day in 1929 on which the bottom fell out of the stock market. The report titled, **American College Athletics**,[4] indicated that athletics, too, had hit a new low. The Carnegie Report of the athletic practices of 130 colleges, became symbolic of what many believed to be the evils of intercollegiate athletics. Football received the brunt of the criticism as it had in the early 1900's when football had been banned at a number of colleges. Unlike the period two decades earlier, which had been condemned for its athletic brutality, the Carnegie Report of 1929 saw excessive commercialism as the chief problem facing college athletics. This, it claimed, led to professionalism and the prostitution of amateur athletics. Henry S. Pritchett, President of the Carnegie Foundation, prefaced the study on **American College Athletics** with these stinging remarks:

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[1] Herbert Kelesne, prospective "adult special," Racine, letter to the Athletic Director, Oshkosh, **circa** 1 May 1924, **Correspondence With Other Colleges, 1919-1942**, Box 1, Wisconsin State University-Whitewater Archives.

[2] President H. A. Brown, Oshkosh, letter of President F. S. Hyer, 2 May 1924, **Ibid.**, Box 2.

[3] Considerable factual material found in this paper is included in my Ph.D. dissertation, "From Normal School to State University: A History of the Wisconsin State University Conference," University of Wisconsin, 1969. A more complete list of footnotes can be found there.

[4] Howard J. Savage, **et. al., American College Athletics** (New York: The Carnegie Foundation for the Advancement of Teaching, 1929).

> The paid coach, the gate receipts, the special training tables, the costly sweaters and extensive journeys in special pullman cars, the recruiting from the high school, the demoralizing publicity showered on the players, the devotion of an undue proportion of time to training, the devices of putting a desirable athlete, but a weak scholar, across the hurdles of the examination—these ought to stop . . . .[5]

The Report defined commercialism as placing a higher value on the monetary and material returns from sport than on the physical, recreational, and moral qualities. Commercialism, the Carnegie Report concluded, motivates recruiting and subsidizing of players, and has "more than any other force . . . tended to distort the values of college life."[6]

The Carnegie Foundation did not investigate any normal schools or teachers colleges in Wisconsin or elsewhere. If it had it would have found many of what the researchers considered athletic evils and abuses existing in the Wisconsin schools. Some of the normal school practices of recruiting students solely for athletic purposes, subsidizing players, and playing professionals could have been uncovered by the Carnegie investigators. The tendency for what the Carnegie Report considered over-emphasis of athletics existed at the normal schools as it did at larger colleges and universities. The Carnegie study would have found, though, that the lack of financial resources at the normal schools severely limited the commercial aspect of athletics.

The Carnegie Report singled out the college president as the "man who is most likely to succeed in uprooting the evils of recruiting and subsidizing."[7] Yet, in Wisconsin, as in institutions of higher learning throughout the United States, it was the college president who refused to limit the development of athletics and who often vigorously promoted intercollegiate sports—sometimes unethically. In the Wisconsin normal schools there were several reasons for presidential support of athletics and indeed for the recruitment of athletes.

First, there was the general belief among the presidents that the normal schools, which were nearly 70 percent female, lacked the virile, male element. A strong athletic program might bring virile young men into the normal schools and eventually infuse the teaching profession with a more masculine image.

Second, the recruiting of athletes would presumably lead to winning teams. Winning teams, it was generally agreed, advertized the school and would draw prospective students to the school. Increased enrollment, would, in turn, mean increased appropriations from the state legislature. President Brown of Oshkosh cynically noted that the State Legislature asked only one question before making appropriations; that was: "How many have you?" All of this related to a general belief in America that greatness and bigness are synonymous. If athletics could help bring about a larger institution, it was not, it seemed, illogical to believe that it would also be a greater institution.

A third reason why the president of a normal school might have supported athletics was to increase the prestige of his school and thereby himself. Americans—college presidents no less—have been empire builders. A normal school president could likely see as well as any college president that successful athletics more than almost any other activity brought renown to the college and to the president himself. President William Rainey Harper believed this when he hired Amos Alonzo Stagg as an associate professor at the University of Chicago in 1892. He wrote Stagg, a recent graduate and all-American football player at Yale, that he wanted Stagg to come to Chicago "to develop teams which we can send around the country and knock out all the colleges. We will give them,

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[5] **Ibid.**, p. xxi.
[6] **Ibid.**, pp. 306-307.
[7] **Ibid.**, p. 265.

"wrote President Harper, "a palace car and a vacation too."[8] If using athletics for institutional purposes was successful at Chicago, or Colorado, or Louisiana State University—which it was—athletics might also bring recognition to Oshkosh, or Stevens Point, or Superior, Wisconsin normal schools.

It is not surprising, then, that recruitment of athletes by presidents as well as by coaches would occur in the Wisconsin normal schools. A coach being interested in winning teams was naturally concerned about the number and type of male student entering the school. The president had the image of the normal school, the pressure for increasing enrollment, and the athletic prestige of his school at stake.

Recruitment and financial inducements for athletes occurred when the first full time coaches were appointed in each of the normal schools in 1912. A coach at the Whitewater Normal School had just arrived in 1912 when he wrote a prospective athlete: "I have been informed that you have some thought of coming to Normal, but have not fully made up your mind. Knowing that you are a football man, I am naturally interested for the Normal's sake."[9] As early as 1913 River Falls Normal was giving jobs on campus to its athletes.

It was in the 1920's and 30's, however, that questionable recruiting policies and unethical practices became more visable in the Wisconsin normal schools. What I have chosen to do is to discuss two cases of what the Carnegie Report called commercialism in athletics as examples. The first deals with the Superior Normal School and the second with the school at Stevens Point.

The first I shall call the case of enrollment and subterfuge at Superior. In 1921 Ira Iri Tubbs, a highly successful Superior high school coach, was hired to take charge of athletics at Superior Normal. In an auspicious debut as football coach, Superior won its first Conference game in five years. But it was not until the end of the 1920's that Tubbs' teams became Conference leaders. In 1928 Tubbs' football team won the championship. At that time the school was accused of recruiting out-of-state football players and offering them school jobs because of their athletic prowess. President A. D. S. Gillett of Superior denied that jobs for students at Superior Normal were "a subterfuge for the employment of athletes."[10] Following the charge President Gillett reported to the Secretary of the Board of Regents of Normal Schools, the Wisconsin Normal School's highest ranking official, that only four of 23 students receiving part-time work were athletes and that seven were girls. No action was taken by the Conference Faculty Representatives, the athletic ruling body, nor by the Board of Regents.

The next year Superior had an undefeated season. Two normal schools at Eau Claire and River Falls brought formal charges against Superior and its administration of athletics. The Conference Faculty Representatives then appointed an investigating committee consisting of three faculty representatives chosen from schools which had not participated against Superior. In the midst of the investigation coach Tubbs resigned under rather obscure circumstances. Meanwhile the investigating committee uncovered some revealing finds.[11] It disclosed that Superior had enrolled some Minnesota athletes who had paid no fees to what was then the Superior Teachers College. Another participating athlete was on the payroll of the college as an assistant in the athletic department. The committee recommended that Superior should forfeit all the games in which the ineligibles had participated and further called for the suspension of Superior Teachers College from the Conference for one year. Both recommendations were adopted by the Conference. The suspension of Superior from the Conference came on the heels of the Big Ten's removal of Iowa for operating a "slush fund" for the financial aid of athletes. The Conference action occurred only a few months following the publication of the Carnegie Report's attack on college athletics. At Superior, while it was never proven, there were strong hints that student activity fees had been used to pay the matriculation fees of athletes.

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[8] Stagg quoted Harper in a letter to his family, 20 Jan. 1891, as quoted in Richard J. Storr, **Harper's University: The Beginnings** (Chicago: The University of Chicago Press, 1966), p. 179.

[9] Physical Director J. G. Fletcher, Whitewater, letter to a prospective athlete, Julius Johnson, 23 Sept. 1912, **Athletic Correspondence, 1902-1940**, Box 1, W.S.U.-Whitewater Archives.

[10] President A. D. S. Gillette, Superior, letter to Secretary of the Board of Regents, E. G. Doudna, Madison, 21 Nov. 1928, **Unprocessed Letters of the Secretary of the Board of Regents**, Board of Regents, basement, Madison; Doudna, letter to Gillette, 22 Dec. 1928, **Ibid**.

[11] "Special Meeting," Faculty Representatives **Minutes**, 7 Feb. 1930.

The second case which I want to discuss arose at the Stevens Point Teachers College in the 1930's. It differed from that at Superior, but it did involve what the Carnegie Report called commercialized athletics. President Frank Hyer had just become head of the Stevens Point institution in 1930 when he received a letter from a minister and father of a Stevens Point athlete. The father was concerned that his boy was not receiving a free education which he believed had been promised him by the Stevens Point athletic department. He wrote President Hyer the following letter: "A Mr. Johnson, representing your Athletic Department, came to Mt. Horeb [Wisconsin] and approached [my son] with a proposition to come to your school and attend with the understanding that he was to receive his maintenance during the year without any expense. . . . If he is to remain there and is doing his part on the athletic field, there will have to be a change."[12] President Hyer replied to the concerned father that no person connected with Stevens Point Teachers College had spoken to his son; that a travelling salesman from Stevens Point had. He explained that his boy had a job which paid most of his school expenses. Hyer wanted to make it clear that he "should object very much to anyone from this college making such approaches as you thought were made" to induce his son to go to Stevens Point.[13] Thus, a decade of athletic turmoil was started at Stevens Point.

President Hyer had formerly been President at the Whitewater Normal School where he had established a strong athletic program. At Stevens Point one of his first tasks was to hire a director of athletics. Hyer felt that this was a very important position to fill. "I want," wrote Hyer to a placement bureau, "a man to coach football, basketball, and to have general charge of the physical education of men." Hyer believed that the low morale of the Stevens Point athletes was a result of the lack of leadership of the previous four coaches. Hyer shortly thereafter hired a Green Bay Packer player, Eddie Kotal, as athletic director and coach.[14]

Coach Kotal soon developed a winning tradition at Stevens Point. With the aid of President Hyer, a number of skilled athletes began attending the College. One promising high school athlete was recommended to President Hyer by the Superintendent of a local high school. Superintendent William C. Hansen, a former tackle on the Stevens Point team in 1901 and later to become President of the Stevens Point Teachers College, believed that this young man "is without doubt the best football material you will get this year and perhaps as good as any freshman in any college or university."[15] Even though this young man was ranked at the absolute bottom of his high school class for the first three and one-half years of his high school career and his percentile rank was zero on a statewide psychological test, President Hyer said that Stevens Point would "be very glad to do all that we can to assist" the young man.[16] The promising athlete attended Stevens Point the next year.

Coach Kotal not only received the cooperation of President Hyer, but local businessmen contributed to the athletic effort. The president of a paper company obtained funds in 1931 to enable Kotal to hire an assistant coach. There was also a strong feeling by some outsiders that Stevens Point businessmen were providing jobs involving little work for athletes.

Within a short period charges were made regarding illegal athletic practices at Stevens Point. In 1932 with Stevens Point challenging for the football championship, the Whitewater Teachers College faculty representative protested the eligibility of a Stevens Point player after Whitewater had been defeated three to nothing. It was charged that the player had not been in school the required one full semester prior to participation. The Conference Faculty Representatives took up the issue and forfeited two of the Stevens Point games. They followed by censuring Stevens Point "for their loose interpretation of Conference rules and for their questionable administration of athletics."[17] The censure of Kotal's handling of athletics did not make him any less desirous of winning. His 1933 basketball team won the Teachers College Conference title and was good enough to defeat Walter Meanwell's University of Wisconsin team. Kotal won a football championship in 1933 despite playing of an ineligible player during the season. They won two more basketball titles in 1934 and 1935.

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[12] Reverend J. M. Green, Mt. Horeb, Wisconsin, letter to the President of Stevens Point, 27 Oct. 1930, **Presidential Administrative Correspondence, 1906-1931**, Box 10, W.S.U.-Stevens Point Archives.

[13] President F. S. Hyer, Stevens Point, letter to J. M. Green, Mt. Horeb, 3 Nov. 1930, **Ibid.**

[14] President F. S. Hyer, Stevens Point, letter to F. L. Brown, Clark-Brewer Coaches Bureau Agency, 21 Nov. 1930, **Ibid.**, Box 4; Norman E. Knutzen, Lawrence College, letter to Hyer, Stevens Point, 3 Dec. 1930, **Ibid.**

[15] Superintendent Wm. C. Hansen, Oconto, letter to President F. S. Hyer, Stevens Point, 25 Aug. 1931, **Ibid.**, Box 12.

[16] President F. S. Hyer, Stevens Point, letter to Superintendent Wm. C. Hansen, Oconto, 31 Aug. 1931, **Ibid.**

The fall of 1935 found Stevens Point with another powerful football team. Kotal, the ex-Green Bay Packer, unofficially organized some of his players before the start of the regular college term and scheduled two pre-season practice games with players from the Green Bay Packers and the Chicago Bears professional football teams. He did this despite the Conference regulations which stated that "all pre-season training except spring training shall be illegal in this conference." Again the Conference Faculty Representatives took up the charges, found Stevens Point guilty, and suspended the school from the league for the remainder of the season. The Secretary of the Board of Regents of the Wisconsin Teachers College expressed what was probably a common feeling when he said that there was resentment about recruiting and subsidization of Stevens Point athletes—something which was probably more important in the suspension than the pre-season training and play against the Green Bay Packers and Chicago Bears. As the Faculty Representatives departed from the meeting in which they suspended Stevens Point one faculty representative reportedly remarked to his fellow representative: "Maybe that will wake up our coach who has been holding illegal practice himself."[18]

Kotal's teams continued to win football and basketball championships. His recruiting practices and playing of ineligible players continued to disturb the Conference. His 1939 basketball team had to forfeit games when he played ineligible players. In 1941 he was playing three ineligible football players, one of whom was not even enrolled at the College, while another who was playing was enrolled but was not eligible to be enrolled. It was further charged that Kotal had gone "to Wisconsin Rapids, found a desirable player, got one of the clubs of Stevens Point to pay his fees," and then the player dropped out of school.[19]

By this time William C. Hansen, the former high school superintendent who had recommended a star athlete for admission to Stevens Point in 1931, became President of the Stevens Point Teachers College. Hansen had, in a small way, contributed to the commercial and professional aspect of athletics at Stevens Point. Now he felt concerned that Kotal and athletics at Stevens Point had become corrupted. With certain pressures exerted upon him, Kotal resigned from Stevens Point in 1942 and this ended an athletic reign of which the Conference is not proud.[20]

What can be said in general terms about abuses in athletics in the Wisconsin Teachers Colleges between 1920 and 1940? The Carnegie Report on college athletics would have called it commercialism—the recruiting of non-high school graduates for athletic purposes; the playing of ineligibles and former professional athletes; the holding of pre-season practices; the illegal subsidization of athletes. But, most of this would not have fit well into the Carnegie Report's own definition of commercialism; that is placing a higher value on monetary and material returns, than on physical, recreational, and moral qualities. I do not believe the Wisconsin schools were ever primarily interested in the monetary and material returns of athletics, and I believe that applies to college athletics in general in America. The motivational forco in college athletics, in my estimation, is almost entirely based upon the definition of athletics.

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[17] Faculty Representatives' **Minutes**, 3 Nov. 1932.

[18] Faculty Representatives **Minutes**, 7 Oct. 1935; Edgar A. Doudna, letter to Regent E. J. Dempsey, 8 Oct. 1935, **Unprocessed Letters of the Secretary of the Board of Regents**, Board of Regents, basement, Madison; Eugene McPhee, Secretary of the Board of Regents, (the 1935 faculty representative from Eau Claire), Personal discussion with the writer at the Board of Regents Office, Madison, 5 Oct. 1967.

[19] Secretary of the Board of Regents, E. G. Doudna, Madison, letter to the President of the Board of Regents, E. J. Dempsey, Oshkosh, 8 Oct. 1941, **Unprocessed Letters of the Secretary of the Board of Regents**, Board of Regents, basement, Madison.

[20] President Wm. C. Hansen, Stevens Point, letter to President W. R. Davies, Eau Claire, 1 Oct. 1941, **Presidential Correspondence and Subject Files**, Box 6, W.S.U.-Eau Claire Archives.

Athletics means to contend for a prize; the prize in college athletics is victory. Winning is the essence of athletics.

It appears to me that abuses occurred in college athletics, not when monetary concerns arose, but when unethical and unprincipled men set out to **win**. If historians were prone to speculate they might suggest that the way to correct abuses in athletics would not be to do away with gate receipts, or the building of costly stadia, or the high payment of professional coaches, or even the abolishment of expensive athletic grant-in-aids—What they might suggest to rid abuses would be to hire ethical coaches and school administrators who would want to win in athletics, rather than hiring those who would countenance the principles expounded by a recent Big Ten football coach who when beaten by an undefeated Michigan team said: I would "rather have an immoral win than a moral victory."

In conclusion, I believe that in the Wisconsin Teachers Colleges in the years between World War I and II the quest for victory, rather than the quest for monetary returns, led to certain abuses which the Carnegie Report of 1929 called commercialism. If we are to use an "ism" for things that are bad it would have been better to have called it "winning immoralism."

Sport, Athletics, and Gymnastics in Ancient Greece

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Few peoples can rival the ancient Greeks in the contributions that they have made in so many fields of human endeavor. The extant works of many ancient Greek writers have supplied valuable information ranging from medicine and political science to art and athletics. This paper will analyze the influence of various political institutions on sport, athletics, and gymnastics in ancient Greece from the eighth through the fifth centuries B.C.

Before looking at the relationship of politics to different kinds of physical activity, it is important to define these kinds of activity in ancient Greek terms. Sport encompasses any physical activity engaged in for recreational purposes and for the sheer joy derived from participation; it may include nonphysical activities and games. Athletics are events in which prizes are awarded to victorious competitors in festivals and funeral games. Gymnastics includes training in a particular activity under the guidance of a teacher or instructor; in this respect, gymnastics could be compared to present-day physical education.

MONARCHY

Homer's monumental works, the **Iliad**, an account of the seige at Troy, and the **Odyssey**, a description of the wanderings of Odysseus after the fall of Troy, clearly indicate that athletic competitions were an integral part of the lives of the people whom Homer was describing during the kingship era. This view seems to be supported since on the occasion of any gathering, whether to entertain a distinguished guest, to offer a sacrifice, or to pay the last rites at a funeral ceremony, athletics formed part of the program.[1] The following is an interesting synopsis on the character of Homeric games:

> They are aristocratic and spontaneous. They are spontaneous as the play of a child, the natural outlet of vigorous youth. There is no organized training, no organized competition, and sport never usurps the place of work. They are aristocratic because, though manly exercises are common to all people, excellence in them belongs especially to the nobles; and when sports are held on an elaborate scale at the funeral of some chieftian, it is the nobles only who compete.[2]

Another interesting point is that the Homeric Greeks had no gymnasium and no specially designed race-course, but instead would use a courtyard to serve as a wrestling ring, the open country as a race-course, and would clear a suitable space for larger-scaled meetings.[3]

Book Twenty-three of the **Iliad** describes one of the earliest accounts of Homeric athletics. As a funeral tribute to Patroclus, who had been slain in combat, Achilles organized athletic games before the city of Troy. The games included a chariot-race, a boxing match, a wrestling bout, and a foot race which are described in detail. The poet also explains briefly a mock fight, an archery match, a discus event and points out that prizes were awarded to all contestants who participated in these events. The description of the chariot-race is most interesting since it gives one a hint that intelligence was as important as physical skill. According to one of the Greek nobles, the race would not necessarily be won by the fastest horse, but victory would go to the driver who exhibited careful thought and wisdom.[4]

Book Eight of the **Odyssey** outlines one of the many adventures encountered by Odysseus on his return to Ithaca after the war. On the island of Phaeacia, Odysseus was invited to take part in games held in his honor, and was addressed in the following manner:

> "Come, Sir stranger, do thou, too, make trial of the contests, if thou knowest any; and it must be that thou knowest contests for there is no greater glory for a man so long as he lives than that which he achieves by his own hands and feet."[5]

Again, with reference to sport, the **Iliad** suggests that leisure time activities were engaged in by the Greeks. As a result of a violent disagreement with King Agamemnon, Achilles withdrew his men from battle and allowed them the pleasure of engaging in the leisurely pursuits of throwing the discus, javelin, and archery competitions.[6]

It appears, however, that a formal educational system was lacking during this period, but, nevertheless, an ideal was prevalent. The educational aim of this era has a familiar tone to it which emerged several centuries later, that is, a well-rounded individual who was well-trained intellectually and physically.[7]

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[1] E. N. Gardiner, **Greek Athletic Sports and Festivals** (London: Macmillan and Company, 1910), p. 14.

[2] **Ibid.**, p. 25.

[3] **Ibid.**, pp. 13-14.

[4] **Iliad** 23.320-323.

[5] **Odessey** 8.145 (Loeb Classical Library, Cambridge, Mass., and London, 1960. Trans. by A. T. Murry.

[6] **Iliad** 23.770.

[7] **Ibid.**, 9.435-443.

SPARTAN OLIGARCHY

The oligarchical Spartan State, with her educational program heavily dependent on gymnastic training, appears to have been seriously interested in sports, athletics, and gymnastics. The atmosphere of games and gymnastic exercises gave them the opportunity to practice their ideal of physical **areté** or excellence which was necessary for their survival. The peculiar internal conditions of the Spartan state gave rise to a potentially explosive situation. An exclusive group of Spartiates were greatly out numbered by the population they had enslaved due to land expansion. Following their incursions into near-by Messenia, in order to meet their overcrowded conditions, an era referred to as the "Golden Age of Sparta" developed. This age saw the emergence of a period of great material wealth, a flourishing of various arts and the cultivation of music.[8] The greatly outnumbered Spartan citizens, however, barely survived a revolution by the enslaved population which prompted a change in the Spartan way of life. From about the middle of the seventh century the constitution of the State, and the system of education was directed toward one objective, namely, the maintenance of a superior army. Ideally, the army was to be ready and able at a moment's notice to supress further uprisings by slaves from within the State, and repel an invasion from outside the State; needless to say, attention to the arts and culture which had flourished previously, were now completely discarded.[9]

The man generally given credit for inculcating into the Spartans a life of austerity and severe discipline was Lycurgus.[10] Perhaps one of the most unique aspects of Lycurgus' reforms was the classification of Spartan males into age groups for the purpose of education. Plutarch succinctly stated the framework of Lycurgus' educational scheme:

> But Lycurgus would not put the sons of Spartans in charge of purchased or hired tutors, nor was it lawful for every father to rear or train his son as he pleased, but as soon as they were seven years old Lycurgus ordered them all to be taken by the State and enrolled in companies, where they were put under the same discipline and nurture, and so became accustomed to share one another's sports and studies.[11]

The male Spartan, from birth until he reached the age of seven was probably under the care of his mother; for the next six years of his life he was enrolled in a juvenile platoon, under the tutelage of a master at which time he was introduced to the severe Spartan system of education.[12] The training regimen was designed to meet the needs of the younger children with competitive exercises in music, dancing, and athletics withheld until the age of ten. At age ten, the Spartan males were frequently participating in public athletic contests. After completing the first six year training period, the young Lacedaemonian youths graduated to a second age group where they remained until the end of their eighteenth birthday, at which time they received further intensified physical training. The third phase of training began at age nineteen and lasted through the twenty-fourth year when the young Spartiates became front-line soldiers. On completion of their thirtieth year they became fully enfranchised Spartans and took their place in the general assembly. The Spartan males no longer lived in barracks, but had the privilege of living at home. Although their formal training period was over, Spartan law required that gymnastics be practiced regularly even during military campaigns. Xenophon's **Lacedaemonians** confirms this stating that, "neither walk nor race course may exceed in length the space covered by the regiment, so that no one may get far away from his own arms."[13]

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[8] H. Michell, **Sparta** (London: Cambridge University Press, 1961), pp. 165-174.

[9] **Ibid.**, pp. 11-15.

[10] Plutarch **Lycurgus**, **Passim**.

[11] **Ibid.**, 16.4 (Loeb Classical Library, Cambridge, Mass., and London, 1914). Trans. by B. Perrin.

[12] On Spartan education, see Michell, pp. 165-174.

[13] Xenophon **Lacedaemonians** 12.1-6. **Scripta Minora** (Loeb Classical Library, Cambridge, Mass., and London, 1925). Trans. by E. C. Marchant.

ARISTOCRACY

Late in the eighth century and the early part of the seventh century, the kingship vanished as a political entity. It is generally accepted that by 700 B.C. the institution of monarchy lost its strong-hold on the **demos** (general public). The Aristoi, the "best men," became prominent, and the **demos** accepted whatever the aristocracy imposed upon them.[14] It was early in the sixth century that Greek states began constructing gymnasia where physical training was practiced regularly. Among many of the reforms that were being instituted at this time were laws pertaining to gymnastics and athletic festivals. Adults were not permitted to enter a gymnasium while boys were exercising, and gymnasia seemed to have regular hours when they could be used, opening at sunrise and closing at sunset.[15] There was a law which called for the death penalty for stealing anything valued over 10 drachmas from a gymnasium.[16] Although the law seems extremely harsh, the mere inclusion of such an edict in the constitution indicates the importance of gymnasia during this period. The Athenian lawgiver, Solon, authorized the payment of 500 drachmas to an Olympic victor and the sum of 100 drachmas to a victor of the Isthmian Games.[17] These laws certainly reflect the status that athletics held in Athenian society. Although payment to victorious athletes was perhaps one of the factors leading to the dissolution of athletics, that is, the rise of professionalism, it is important to note the emphasis placed on athletic festivals during the period. Why did Solon institute such a law? There is a lack of evidence supporting any conclusions that Solon's law authorizing payment to festival victors had any definite purpose. There is, however, a possibility that he had a dual objective in mind. Using the games as an emotional outlet for a disgruntled Athenian citizenry, as well as a method of unifying a state torn by internal strife seems a possible explanation. So strongly did Solon believe in athletic festivals that he forbade anyone to be treated unjustly or abused during them.[18]

It is interesting to note that in Athens, during the aristocratic era, there were separate gymnasia for citizens of pure Athenian lineage and for those Greeks whose parents were not of pure Athenian stock. Themistocles, considered not to be of noble birth, was permitted to exercise only at the **Cynosarges,** a gymnasium outside the gates of Athens.[19] Plutarch tells us how Themistocles, during his youth, persuaded a group of young men, from good families, to exercise with him at the **Cynosarges,** thereby eliminating discrimination between pure Athenian citizens and those of mixed descent.[20]

There seems to be little doubt that during the sixth century B.C. athletic festivals made significant gains in popularity among the Athenian aristocracy. Similarly, Solon's laws reinforce the idea that gymnasia were becoming an integral part of Greek society.

TYRANNY

The laws of Solon transformed Athens economically and politically and it is possible that his reforms were responsible for introducing Athens to a new political structure under the tyrant Pisistratus. Pisistratus placed great emphasis on the Panathenaic Festival. Whether the tyrant was actually responsible for the institution of this festival honoring the Goddess Athena is uncertain. One thing is clear, however, Pisistratus' name has been popularly associated with enlarging the festival and attempting to make it panhellenic in scope.[21] The Panathenaic Festival was patterned after the Olympic Games and Pythian Games, which convened every four years.[22] Besides athletic contests, the festival was expanded to include competition in the recital of Homer's poems.[23] The awarding of prizes was established about 560 B.C., the evidence for this being provided by a series of vases known as Panathenaic amphorae.[24] It was during the reign of Pisistratus that Attic black-figured vases became popular in the Greek world, displacing Corinth as the leading pottery center in antiquity.[25] The idea of using Attic vases as prizes with athletic scenes on one side, and the Goddess Athena represented on the other side, served a dual purpose. They not only were used as awards, but also helped Athenian potters economically. As many as 140 amphorae, each filled with oil, were awarded as a single prize at the games.[26] The management of the festival was in the hands of a board of ten **athlothetai** (Commissioners of the Games) elected by lot and holding office for four years.[27]

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[14] W. G. Forrest, **The Emergence of Greek Democracy** (New York: McGraw Hill, 1966) p. 58.

[15] W. A. Greenhill, "Gymnasium," **Dictionary of Greek and Roman Studies**, edited by W. Smith, W. Wgyte, and G. E. Marindin (1890), 926.

[16] Demosthenes **Against Timocrates** 114.

[17] Plutarch **Solon** 24.

[18] **Ibid.**, 1.

[19] **Ibid.**, **Themistocles** 1.

[20] **Ibid.**

[21] Victor Ehrenberg, **From Solon to Socrates** (London: Methuen, 1968), p. 82.

DEMOCRACY

With discontent becoming evident, the time was ripe for a new political structure. Under democracy, Athens had some outstanding leaders, the most prominent being Pericles. Pericles did much for Athens and indeed much for posterity. It was his magnificent building program that not only benefited the **demos** by providing work for them, but beautified Pericles' beloved city, a city that he believed was ". . . an education to Greece."[28] Every detail that concerned Athens interested Pericles whether it related to politics, art, or athletics. The athletic grounds, with their baths and dressing rooms, which were previously afforded by the wealthy, were now built for the **demos**.[29] Athens' leading statesmen passed a decree establishing musical contests as part of the Panathenaic Festival and introduced rules pertaining to the various forms of competition.[30] The funeral speech of Pericles alludes to the fact that recreational pursuits were engaged in at every season of the year.[31] Pericles was extremely popular as his long tenure as Athens' leading statesmen would seem to indicate. One method used to win the following of the **demos** was to provide them with gymnastic exhibitions which were a favorite among the general public. This method was also used later by Nicias, an Athenian general, but on a much larger scale in order to ingratiate himself with the **demos**.[32]

One cannot help imagining that during the period of Pericles' and Nicias tenure emphasis shifted from actual participation in athletics and gymnastics to spectator interests in these kinds of activity by the masses. This is not to imply that the gymnasia were completely deserted, but it seems logical to conclude that the methods employed by the two outstanding generals of providing spectacular athletic festivals for the **demos** would have this effect. Moreover, archaeological evidence seems to support the theory that participation in gymnastics dwindled under the democratic form of government. Vase paintings, which were a popular means for representing scenes of gymnasia and palaestrae, changed about 440 B.C. with scenes depicting youths lounging about and talking with one another being more prevalent.[33]

CONCLUSION

In the heroic age, the Greeks had already developed their love for athletic contests and sports. Although on the surface it appears that athletic events were strictly limited to the nobility, the lower classes probably had their own contests. This may be conjectured by the contest arranged between the disguised Odysseus and the begger Isus, with the prize being a monopoly of begging at the Palace of Odysseus.[34]

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[22] Walter Hyde, **Olympic Victor Monuments and Greek Athletic Art** (Washington: Carnegie Institute of Washington, 1921), p. 17.

[23] Ehrenberg, p. 82.

[24] J. A. Davidson, "Notes on the Panathenaea," **Journal of Hellenic Studies**, XXXII (1912), 27.

[25] Ehrenberg, p. 81.

[26] Gisela Richter and Margorie Milne, **Shapes and Names of Athenian Vases** (New York: Plantin Press, 1935), p. 3.

[27] Aristotle **Athenian Constitution** 60.

[28] Thucydides 2.41 (Trans. by Rex Warner).

[29] A. R. Burn, **Pericles and Athens** (New York: Collier Books, 1948), p. 145.

[30] Plutarch **Pericles** 13.

[31] **Thucydides** 2.38.

[32] Plutarch **Nicias** 3.

[33] Clarence Forbes, **Greek Physical Education** (London: The Century Company, 1929), p. 69.

It seems clear that in the oligarchical Spartan state the emphasis was on physical **arete** or excellence. The activities of games and gymnastic exercises was obviously well received by Spartiates. The sixth century saw the burgeoning of gymnasia throughout the Greek city-states. The intense interest in gymnastics appeared to be associated with Greek successes in the Persian wars. Forbes substantiates this belief, expressing the view that after the Persian wars had been fought, the Greeks realized the important role physical fitness played in their victories.[35] Aristophanes similarly believed that the victory at Marathon could directly be attributed to the superior physical condition of the Greek.[36]

In the period following the Persian wars, there was a noticeable change in emphasis regarding sport, athletics, and gymnastics. In Athens, gymnastics seemed to lose its popularity with the Greek citizenry.[37] Perhaps under democracy the **demos** wanted to dissociate itself from practices which were previously afforded by the aristocracy. It is possible that they did not disbelieve in such training but recognized the fact that this was once strictly an aristocratic privilege. Xenophon confirms the lack of gymnastics practiced by the masses in Athens when he said that, " . . . they not only neglect to make themselves fit, but mock those who take the trouble to do so."[38] Aristophanes supports this view by mentioning that the desire of the general public seemed to be to discuss and debate and, as a result, the exercise grounds were deserted.[39]

It seems that there were other relationships between athletic and gymnastic institutions and politics. Polycrates, the tyrant of Samos, closed all gymnasia on the island because they were possible centers of democratic opposition.[40] When Thebes was liberated from the Spartans by Empaminondas, the plot was developed in a palaestra.[41] Aratus similarly found supporters for his revolt against Macedonia in the gymnasia and palaestrae of Argos.[42]

It seems perfectly clear that sport, athletics, and gymnastics were extremely important from the eighth through the fifth centuries with emphasis varying from one period to the next. It is interesting to note, however, that regardless of the political group in power, it appears that each one in some way or another influenced sport, athletics, and gymnastics; and that all three institutions were an integral part of Greek life. It is perfectly clear that the love of sport, athletics, and gymnastics among the Greeks was one of the basic values of their culture, and one which transcended particular types of political institutions and other arrangements by which men brought order to their lives.

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[34] **Odyssey** 18.13.

[35] Forbes, p. 85.

[36] Aristophanes **Clouds** 986.

[37] Forbes, p. 88.

[38] Xenophon **Memorabilia** 3.5.15 (Loeb Classical Library, Cambridge, Mass., and London, 1923). Trans. by E. C. Marchant.

[39] Aristophanes **Frogs** 1069.

[40] H. A. Harris, **Greek Athletes and Athletics** (London: Indiana University Press, 1966), p. 149.

[41] Plutarch **Moralia** 594C.

[42] **Ibid.**, **Aratus** 6.4.

Leonardo da Vinci: His Anatomical and Physiological Studies

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At Leonardo's death in 1519, he left more than 10,000 sheets of drawings and manuscripts detailing the range of his interests. Some 7,000 sheets survived and are now in public and private collections. Scholars have continuously been in search for the missing folios. Approximately four years ago (February 1967) Professor Jules Piccus of the University of Massachusetts was looking for medieval ballads in the National Library of Madrid. Accidently he came upon two leather-bound volumes—some 700 pages of Leonardo's notebooks. They had been mis-catalogued for over a century.

Prior to this finding, it was obvious from his writings that Leonardo had a masterful knowledge of anatomy and physiology. These volumes exemplify the inventive and inquisitive capacity of this 15th century genius especially in the area of anatomy and physiology. Many scholars agreed that the later years of his life (he died in 1519) were devoted to his studies of the human body. The years between 1500 and 1508 was a period of Leonardo's life that had been sparsely covered in other manuscripts prior to the 1967 findings. It was in these folios that his advanced knowledge of the human body was revealed.

Leonardo was born April 15, 1452 in a small village called Vinci in the Tuscan Hills not far from Florence. He was the illegitimate child of Peiro da Vinci and Caterena (probably a servant). Like many Tuscans, he was tall and of fair complexion with auburn hair. His father moved to Florence and left Leonardo at an early age by himself in Vinci. He lonely roamed the Tuscan hills developing a keen sense and a deep love for nature.

Leonardo had a lot of pride in his physical body. As a youth Vasari said Leonardo "could bend the clapper of a knocker or a horseshoe as if it were lead with his right hand" (Leonardo was left handed). He became a vegetarian, probably, because of his love for animals and birds.

Leonardo was the first to approach science as an artist. In his manner of dealing with many subjects we can sense how Leonardo's study of nature gradually frees itself from art as he goes along. We find notes on purely scientific experiments to which he refers as "independent books." His treatise on anatomy is an example of this. He finally reached the stage of setting down a whole series of observations dealing with unexplained natural phenomena in his chapter on growth of trees and plants and on anatomy. These observations certainly go far beyond the simple practical information that a painter might need.

Leonardo said "The eye which is called the window of the soul is the chief means whereby the understanding may most fully and abundantly appreciate the infinite works of nature; and the ear is the second inasmuch as it acquires its importance from the fact that it hears the things which the eye has seen. If you historians, poets or mathematicians have never seen things with your eyes you would be ill able to describe them in your writings."

This places in a new light the task to which Leonardo set himself. He appears as the versatile, inquisitive genius possessed by a passion for experimentation, whose one desire was to explore and to understand the universe. He said "Movement of the body reveals movement of the soul."

His goal as a scientist was to grasp the forms and laws of nature and life as they revealed themselves to his alert and penetrating eye and to set them down in drawings. Thus, the drawing becomes the instrument of formulating and transmitting knowledge in any field of human endeavor and it has come about that even the practical sciences draw on predominantly visual processes, both in the recognition of their specific problems and in the communication of the solution of these problems.

If we search for a unifying principle in the wealth of his studies, scattered over the pages of his notebooks, we get the impression that Leonardo had in mind an encyclopedic demonstration in man's total knowledge.

Leonardo became particularly interested in the study of anatomy and he did not confine his attention to the more superficial structure but acquired also a knowledge of the anatomy of the heart and of the larger blood vessels. After dissecting these organs carefully, he discovered the descriptions of them given by Galen were gravely at fault. The branches of bronchioles or air tubes had no connection with the heart, as Galen had asserted they had, but diminished gradually in calibre and then ended blindly in the lungs. Leonardo confirmed what his dissection had taught him by the additional experiment of inflating the lungs with air. He found that however he increased the pressure of air he could never manage to drive air from the bronchioles into the heart. He was unable to do this because these two structures were entirely separate and not connected with each other as Galen stated.

Having proved Galen's theory wrong, Leonardo made more dissections of the heart and paid special attention to the valves at the roots of the great blood vessels. Experiments with the valves showed him that they were so placed as to ensure that the blood should always flow only in one direction and not be able to regurgitate back into the heart. Yet, the ancient idea that blood percolated from one side of the heart to the other through the intervening septum was so firmly fixed in everybody's mind that even so great a genius as Leonardo was unable to think otherwise. As a consequence of this blind spot in his thinking, he failed to anticipate Harvey's discovery of the circulation of the blood made a century later.

Leonardo hardly noticed arithmetic, but concentrated on geometry. He was familiar with the geometric principles and used them as the basis of his studies of perspective, optics and proportion (Kinesiology). In this connection we may mention his "geometrical exercises." These combinations of simply constructed ornamental figures, equilateral surfaces, and bodies eventually lead to the so-called "transformations"—that is to the "squaring" of curved surfaces and spherical bodies. Yet at the same time Leonardo appreciates the aesthetic charm exerted by these mathematically centered and proportioned figures. These are encountered time and again in the forms of both art and nature.

Representative of his appreciation and comprehension of structure and action of the human body are his drawings, "Anatomical Studies" and "Study of Action" now housed in the Academy at Venice.

Leonardo writes:

"The painter who has acquired a knowledge of the nature of the sinews, muscles, and tendons will know exactly in the movement of any limb how many and which of the sinews are the cause of it, and which muscle by its swelling is the cause of this sinew's contracting, and which sinews having been changed into most delicate cartilage surround—the—muscle." Leonardo apparently possessed the highest personal standards with respect to his own physical perfection. Vasari made the following statement regarding Leonardo "—whose personal beauty could not be exaggerated, whose every movement was grace itself and whose abilities were so extraordinary that he could readily solve every (physical) difficulty."

LIFE AND TIMES OF LEONARDO da VINCI

To aid in a better understanding of the place of Leonardo in the stream of history, this chart indicates the main events and works of his life in chronological relationship with other personalities and happenings of his time. For example, we see that while Leonardo worked on "The Last Supper" Columbus was exploring the western world: that [illegible]s invaded Mexico in the year Leonardo died—two years after the start [illegible]rmation.

1214 (?)	Roger Bacon	1234
1254	Marco Polo	1323
1265	Dante	1321
1412	Joan of Arc	1431
1452	Leonardo born in Vinci near Florence	
1431	Francois Villon	1463
1435	Verrochio	1454
1452	Savonarola	1498
1453	Fall of Constantinople	
1453	End of Hundred Years War	
1465 (?)	Landscape Painting	
1466	Erasmus	1536
1468 (?)	Leonardo went to Florence	
1469	Machiavelli	1527
1471	Albrecht Durer	1528
1473	Copernicus	1543
1473-4-5	Baptism of Christ—Annunciation—Hanging of B. Bondini	
1475	Michelangelo	1564
1480-1	Adoration of the Magi—Cecilia Golderani	
1480	Height of Inca Power in Peru	
1481	Leonardo goes to Milan (Serving L. Sforza)	
1483	Raphael	1520
1483	Martin Luther	1546
1483-4(?)	Madonna of the Rocks	
1487 (?)	Sketch of Equestrian Statue	
1487	War of Roses ends (Began in 1455)	
1490	Rabelais	1553
1492	Columbus discovers America	
1493-4 (?)	The Last Supper	
1497	First Voyage of Amerigo Vespucci (Friend of Leonardo's)	
1499	French take Milan	
1500 (?)	Virgin Christ and Saint Anne Beatrice D'Este	
1500-5	In Florence (Venice, Mantua) Half a year under Cesare Borgia	
1505-6	Mona Lisa—Battle of Anghiari	
1506	Saint Peter's is begun	
1506-13	In Milan (Visits to Florence) Scientific (Anthropometric and Physiological) Studies—NOTE BOOK	
1509	Henry VIII King of England	
1513-16	In Rome (Visits Parma, Serving Guiliano De Medici)	
1515	Francis I invades Italy—**Marc Antonio della Torre**	
1516-19	At Amboise, France (Serving Francis I)	
1517	Martin Luther's 95 Thesis (Reformation begins)	
1519	Leonardo died at Cloux (near Amboise) at 67	
1526	Palestrinae	1594
1564	Galileo	1642
1564	Shakespeare	1616

For a deeper insight into the life and works of Leonardo may I suggest:
Leonardo da Vinci, **The Anatomist,** by McMurrich and Ployfair, Published by Williams and Wilkens Co., Washington, D.C., 1930.

The World of Leonardo, by Robert Wallace, Time—Life Books, New York Times, Inc., 1966.

Leonardo da Vinci, Charles D. O'Malley and J.B. de C.M. Saunders, H. Schuman Co., New York, 1952.

The World of Leonardo da Vinci-Man of Science, Engineer and Dreamer of Flight, by Ivor B. Hart, Viking Press, New York, 1962.

Leonardo da Vinci, by Kenneth Clark, Pelican Paperback, Published by Penguin.

The Romance of Leonardo da Vinci, Translated from (Russian) Mereykosky, Signet Paperback, The Heritage Press, New York, 1938.

Notebooks of Leonardo da Vinci, by Pamela Taylor, Mentor Paperback.

Selections from the Notebooks of Leonardo da Vinci, Edited by Irma C., Richter, Oxford University Press.

Leonardo da Vinci; Psychoanalytic Notes on the Enigma, International University Press, New York, 1901.
(For an insight into Leonardo's mind and motivations, his childhood and its effects, his illegitimacy and other facets, you may care to peruse this book.)

Dr. Harry A. Scott, Creative Physical Educator

ALLEN A. FELD
Queens College

INTRODUCTION

In the historical development of the physical education profession Harry Alexander Scott's career spans one half a century. His contributions to the field of health, physical education, recreation and athletics have been numerous. The knowledge and experience exhibited by Harry Scott over the years has in the judgment of many enabled the profession to develop and expand rapidly in the area of facilities, curriculum and intercollegiate athletics. His contributions and the influence he has had on his former students, many of whom are the outstanding leaders in the physical education profession today is significant and worthy of a historical study of the man.

FORMATIVE YEARS

Harry A. Scott was indiginous to Kansas having been born in Parsons, on the 16th day of September 1894.

It has been established that an individual is a product of his heritage and environment and these factors usually govern an individual's conduct throughout life. Harry Scott was the recipient of characteristics associated with people who had survived hardships of the frontier past. The courageous, tenacious, daring and challenging experience of his antecedents were significant in forming many of Scott's attitudes and concepts.

The importance of education to America's pioneers and especially to Harry's parents imparted this precept to their children. Young Harry proceeded toward the goal of attaining the maximum education.

Harry Scott attended elementary and secondary schools in Parsons. Young Harry, as a self taught tumbler and gymnast of sorts, was recognized by his teachers for his skill and interest, was requested to teach physical education to the elementary school children on a one day a week basis. In addition, this youngster five feet five inches tall and weighing 138 pounds more than held his own in athletic competition. He competed in football, basketball, track and baseball for four years and performed creditably in all.

Upon graduation from high school, and after considerable investigation of the various colleges offering professional preparation in physical education, he decided to enroll at the Kansas State Normal School at Emporia.[1] At Normal, Scott competed in gymnastics as a tumbler and performer on the parallel and high bars; becoming Captain of the 1917 team.

Throughout Scott's first year at Emporia the United States was poised on the brink of war. The pressure was on youth to serve the country. Harry Scott enlisted in the Navy and was ordered to the Great Lakes Naval Training Station where he entered a school for training as a radio operator.

While Scott was still in the Navy he visited New York City. As part of his sight-seeing tour he went to Columbia University. To a young man from the plains of Kansas, Columbia and New York City presented an awe inspiring scene. He sensed immediately that this would be the place he would seek an education following the war.

PROFESSIONAL PREPARATION

Harry Scott was discharged from the Navy in Boston and proceeded immediately to New York to enroll at Teachers College, Columbia University. Arriving at Columbia in January of 1919, short of funds and still in uniform, Harry was fortunate to meet Dr. George L. Meylan who was an Adjunct Professor of Hygiene and Physical Education and Medical Director of the Columbia College Gymnasium. Dr. Meylan immediately employed him as a part-time swimming teacher at Columbia College.

At Teachers College, Dr. Thomas D. Wood was the head of the health education unit and chairman of the department and Dr. Jesse Feiring Williams was responsible for the physical education division.[2] Williams had studied under Leonard and Savage who were opposed to formalism in education. Harry Scott was therefore taught by many of the leaders in the educational revolt against formalism. He became an enthusiastic advocate of the movement although some of his previous training had been in the formal school of thought and practice.

In retrospect, Scott related that his formal class work under the master teachers and highly professional scholars at Columbia helped him develop a philosophy of education and physical education that undergirded everything he did throughout his professional career. This philosophy was amply supported by the conviction that nothing should be practiced in physical education that could not be scientifically determined and justified.

UNIVERSITY OF OREGON

During the school year of 1920-21 Scott began to consider seriously the direction of his future professional career. One day in May 1921 Dr. Meylan introduced Scott to Dean John F. Bovard of the University of Oregon. The Dean was searching for a man to head up the Department of Physical Education for men at the newly created and first of its kind, School of Physical Education at the University of Oregon. The outcome of this and subsequent meetings resulted in Bovard's employing Scott for the position with the rank of full professor to begin in September of 1921. Thus, Harry Scott at age 27, became one of the few people in the college field, perhaps to leap from instructor to full professor in one year.

The School at Oregon was a bold new innovation which formulated and organized the phases of health, physical education, professional preparation and athletics under one head. This type of organizational model generated a national interest and was subsequently used as a prototype for the establishment of similar schools at universities throughout the country.

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[1] Statement by Harry A. Scott, personal interview, August 12, 1969.

[2] George W. Averitte, "A History of Health Education and Physical Education, Teachers College, Columbia University." Unpublished doctoral dissertation, Teachers College, Columbia University, 1953.

In developing the physical education program at Oregon, Harry Scott's desire was to provide every man enrolled an opportunity to experience and participate in the widest possible sports program. Scott had observed that a large segment of business and professional people utilized recreational activities for business and social purposes. As such, Harry adhered to the supposition that the university should prepare the student by exposing him to courses where he could acquire skills and attitudes that would enable him to maintain his health and help him to meet his professional and social obligations after graduating.

Scott continually applied his analytical mind and creative ability to provide a program of activity for everyone, intramurals, faculty and student recreation and rehabilitation for handicapped students. Heretofore, corrective plans in colleges and universities dealt with postural or structural defects and corrective exercises.

It was hypothesized by Harry Scott that corrective programs did not go far enough. He maintained that the handicapped person could simultaneously acquire skills and learn appropriate adapted games and sports. The program he devised received for him national acclaim and was adapted by other universities and colleges throughout the country.

RICE INSTITUTE

The Rice Institute felt the need to establish and develop a department of physical education to its university program. As such, in 1929, recruited Harry Scott and appointed him as professor of physical education and chairman of the department.

Fully aware of the prevailing attitude of his academic colleagues at Rice toward physical education, Harry was determined to establish a program comparable to the other departments on campus. Scott cognizant of the task confronting him proceeded to develop a professional curriculum; formulated a program of physical education for the general student body; instituted a university health service including a thorough medical examination for all male students; and refurbished and developed more adequate facilities for physical education, including intercollegiate athletics.

Scott further proceeded to organize the department into four major sections, namely, intensive physical education, extensive physical education, professional preparation of physical education teachers and instruction in health and hygiene.[3] He was given a free hand in constructing the curriculum so long as it coincided with the course pattern of the institution and met or exceeded the standards of scholarly content established for the Rice Institute.

The distrust by some members of the faculty toward physical education departments caused Scott some concern. Although he had professed otherwise, the consensus remained that the establishment of a professional preparation program was nothing more than a means whereby students selected could be admitted and kept eligible for intercollegiate competition. Scott's aim however was to establish a program of teacher education as an integral part of the on going curriculum at Rice and in the process create as few problems as possible. He embarked upon developing such a program which later earned the respect of his critical colleagues. Scott's program demonstrated that the theory and practice of physical educators offered ample opportunities for sound scholarship by maintaining high standards, guided by the same criteria used in other fields. He was determined that conflicts as to purpose and goals of physical education at Rice would not become a cause for doubt and confrontations among his colleagues.[4]

The design of the program permitted students to enroll in a diversity of interdisciplinary courses. However, students were required to acquire skills in activities and the methods used for teaching the wide variety of activities comprising a physical education program.

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[3] Campanile, The Rice Institute, 1930.

[4] Statement by L. Carrol Adams, personal interview, March 18, 1969.

Scott interpreted the undergraduate curriculum of professional preparation was not one of specialization but rather generalization. Specialization he advocated should be left to graduate study. Undergraduate instruction should strive to provide individuals with a thorough scientific professional and cultural background so necessary to the teacher.

Harry Scott's success was based primarily on his outstanding leadership qualities which in turn made his position as an administrator an enviable one. This prominence was enhanced by the fact that he developed a competency in most phases of the total physical education program. He was proficient in organizing and conducting the basic program of physical education for all students; in the program of teacher education, health education, intercollegiate athletics and educational administration.[5]

As skillful as Scott was in the field of human relations, he however, could not avoid the inevitable conflicts which all administrators must experience. Harry felt that he had accomplished about all he could at Rice and the time was opportune to move, since there were other positions available for him. In 1944 he accepted an offer to become chairman of the Physical Education Department at Brooklyn College. The following year a vacancy occurred at Teachers College, Columbia University. The position at Columbia was accepted by Scott without hesitation, fulfilling an inner secret aspiration which he had held for many years.[6]

TEACHERS COLLEGE, COLUMBIA UNIVERSITY

At Teachers College Scott was given the responsibility for the graduate program, which included doctoral courses. Students who expressed an interest in college or university teaching or administration, were assigned to Scott.[7] As a consequence Harry carried one of the heaviest doctoral loads in Teachers College and advised more graduate students than any one individual, possibly with the exception of Dr. Jesse Fiering Williams.[8]

Scott would continually impress upon his advisees: -

> . . . that nothing is more important than the scholarly product you offer for the degree. That's what it's all about. The subject of your dissertation isn't important; it's how well you follow the methods of science that counts. The most important thing of all is the satisfaction of a job well done and the realization and confidence that comes from knowing that you know more about a single subject than anyone else in the world.[9]

In the role of advisor, some students saw Scott as a very warm compassionate individual while others had the impression he was dictatorial. As a dedicated man, he devoted many hours during each day for consultation with graduate students and was always an unfailing source of assistance. Counseling was an important phase of the program and one of the functions Harry enjoyed the most.

As a teacher, Harry Scott was indeed versatile as he possessed competencies in a wide variety of areas. He could teach most motor activities extremely well and some adequately. Scott was of the belief that an individual should be able to interpret the skill as well as demonstrate. In the theory courses he applied his wisdom by teaching a diversity of subjects. It seemed that he came to class without any notes and appeared to lecture extemporaneously, although he must have had an outline with him. His years of experience and wealth of knowledge enabled him to talk from a practical point of view. He was a pragmatic individual and was not verbose in his lectures. Harry had the knack of reducing a lot of verbiage into language students could comprehend and eventually apply in a job situation. His ability to lecture in a clear voice and positive manner convinced his students that he was sincere and devoted to the profession.[10]

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[5] Statement by Gilbert Hermance, personal interview, May 25, 1969.

[6] Statement by Richard Jamerson, personal interview, January 9, 1969.

[7] Statement by Hally Beth Poindexter, personal interview, May 28, 1969.

[8] Based on personal correspondence between Hollis L. Caswell and the writer, February 24, 1970.

[9] Statement by Harry A. Scott, personal interview, August 13, 1970.

Harry Scott's objective in teaching was to develop leaders in the field and with this goal in mind constantly strove to present the material so that it had purpose and was meaningful. He believed in generating the subject matter to a grass roots level and took this approach with every course he ever taught. Sooner or later whether it was philosophy, principles, facilities or administration, it all terminated with total student involvement. His whole concept was a fine blend between theory and practice.[11]

Teaching did not terminate in the classroom or his office. Much was learned by all who attended the ritualistic 10 and 3 o'clock coffee session conducted in the College cafeteria where Harry served as unofficial host. Scott would assume a Socratic position, asking questions which would require thoughtful answers, probing gently while continually encouraging debate. He was able to utilize the insight he gained during these gatherings to further individualize his relations with the young people and enable them to reinforce their strengths and overcome their weaknesses. It also gave the students an opportunity to get to know Scott in another dimension. It was not unusual to find Harry doing a great deal of counseling during these sessions.[12]

These Kaffee-Klatsches were a combination of social and professional experiences for all involved. It was customary to find professors from other departments sitting around the table with his students discussing the sports scene as well as various problems in education and the world. Scott's colleagues considered him to be not a physical educator on the periphery of the academic world but as a man who was totally involved in education. These sessions further provided the students with the opportunity to request these professors to become members of their doctoral committees. After graduation they were able to call upon the faculty for recommendations to obtain future positions.

WRITINGS

Harry Scott substantially contributed to the literature of the profession through his numerous articles in professional journals. Over a period of 40 years, Scott wrote articles which appeared in a variety of periodicals and journals. These articles pertained to health, physical education, recreation and athletics. While a few others may have exceeded his literary out-put, what he did write was extremely influential. In addition he authored the book **Competitive Sports in Schools and Colleges** (1951); collaborated with Raymond A. Snyder on the book **Professional Preparation in Health, Physical Education and Recreation** (1954); and with Richard B. Westkaemper the text **From Program to Facilities in Physical Education** (1958).

His writings were not merely theoretical or academic exercises but good sound practical documents meticulously thorough, accurate and comprehensive. While he never felt the pressures to publish or perish, he wrote because he felt he had something to say.

PROFESSIONAL ORGANIZATIONS AND CONFERENCES

There were a number of professional organizations and conferences of which Scott was a member. In all of these groups Harry Scott invariably played a major leadership role in the capacity of president, vice president, secretary-treasurer, chairman or director. However, his favorite organization was the College Physical Education Association. As Secretary in 1923, he instituted the printed proceedings which ultimately grew to provide some of the best literature in the field. Scott was of the opinion that one of the criteria used to determine whether a leader was successful and productive was that the individual belong to and be active in various local, state and national organizations. He practiced this precept extensively and contributed generously of his experience and time with little regard for recognition or personal gain.[13]

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[10] Statement by Richard B. Westkaemper, personal interview, August 26, 1968.

[11] Based on personal correspondence between Paul Governali of San Diego State College, and the writer, April 2, 1970.

[12] Statement by Lewis Hess, tape sent to writer, June 12, 1970.

RETIREMENT

Although Scott had reached the mandatory retirement age of 68, he did not remain idle. He and his wife Mae moved to Carmel, California where they settled in a home approximately one mile from Dr. Williams.

Harry Scott was not one to be happy sitting around, or spending his days just puttering around his garden. He felt then, as he feels today, that a hobby or vocation, however rewarding, is no adequate substitute for the practice of one's life-time vocation. Accordingly, he obtained a part-time teaching position at San Francisco State College. In addition he conducted seminars at Sam Houston State College and summers taught courses at the University of Minnesota, New Mexico State, Kansas State Teachers College at Emporia, University of Utah and San Jose State. He also taught part-time during the regular session at San Jose.

PHYSICAL EDUCATION FACILITIES

Scott's interest in facilities had been stimulated through his association with Dr. George T. Meylan of Columbia College. During the ensuing years he acquired a national reputation as an expert in the area of facilities and became a consultant to many colleges and universities in the planning and construction of their facilities. Subsequently he was appointed Chairman of the Jackson Mill Facilities Conference and to the Michigan State Conference. Having also taught innumerable courses in facilities at various colleges and universities and having conducted seminars and workshops, Scott has had a profound effect on the planning and construction of physical education facilities throughout the country.[14]

Harry Scott has been unwavering in his position that physical education is an educational and enjoyable experience for people of all ages with many benefits derived therefrom

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[13] Statement by Delbert Oberteuffer, personal interview, April 2, 1970.

[14] Based on personal correspondence between Glenn W. Howard of Queens College, CUNY, and the writer, March 12, 1970.

[15] Statement by Raymond Snyder, tape sent to writer, May 16, 1970.

TEACHER EDUCATION

Teacher Education and Inner City Physical Education

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The development of a functional teacher preparation program for any discipline or area of concentration is a complex and challenging task. The utility of those experiences comprising the educational process is subject to the constantly changing needs and interests of society, and what may appear to be effective one year may be an anachronism and ineffective the next. In our attempts to accomplish the tremendous task of educating all youngsters, teacher education programs have tended to design experiences which assume the standardization of two variables which cannot be standardized: students and teaching methods. It is imperative to recognize that students, as such, are subject to inter and intra-variability and therefore, the "methods" or procedures for conveying skills, knowledge, and appreciations, once content has been decided upon, must also be changed. What is effective and educationally sound for one group of prospective teachers may not be for another.

Colleges and universities must become more flexible in terms of their course offerings and procedures whereby students receive degrees and certification for teaching.

The identification of experiences for prospective physical education teachers for the inner-city is complex. The validity of those experiences is dependent upon, and subject to, those who identify their content, those who are responsible for their implementation, and those who must live with their results. While the devising of a "curriculum" on paper for the preparation of inner-city physical educators is difficult, it can, through cooperation and thought, be achieved. The most difficult task however, is not in identifying the experiences but in implementing them. Colleges and universities tend to be stereotyped as to the kinds of experiences and personnel they are willing to utilize in the preparation of teachers. Ennui on the part of universities to be sensitive to the needs of society is evident. Consider the responses of 281 colleges and universities in 17 southern and border States, including Washington, D.C., when asked whether "teacher training institutions have a special responsibility to help improve the education of the disadvantaged." Over 95% of the universities replied they do. Fine!—except for the response to another question. Asked whether their institution had made any changes in curriculum, faculty, course offerings, or methodology specifically to improve the preparation of new teachers for the disadvantaged, only 11% indicated they had made some changes.[1]

The problem in staffing our inner-city schools with competent and effective physical education teachers and coaches does not lie with those teachers, coaches, administrators, and community leaders of the inner-city, nor with college students wanting to teach physical education. Quite the contrary. We have found, as have other institutions, that inner-city personnel want good teachers and coaches. They want to cooperate. They seek higher education's assistance. They have excellent ideas and are willing to work and make sacrifices for their fruition. Students, likewise, want to teach in the inner-city. More and more black youngsters are being afforded the opportunity to go to college, and a large majority want to return to their homes and teach in their community.

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[1] **Southern Education Report**, April, 1967, p. 13.

The problem lies with the institutions **listening** to what personnel in the inner-city have to say, providing cogent experiences to students demanding relevancy, and instituting ameliorations in antiquated programs and procedures. Physical educators in higher education are apprehensive about instituting change in program employment patterns for fear of attenuating their "academic" status in the eyes of colleagues from other disciplines.

Our department and university does not have a corner of the market on foresight, creativity, ingenuity, and accomplishment in the preparation of physical education teachers in general, nor of inner-city teachers in particular. We have problems. Progress is slow and often imperceptible. For every four things we try, one may work. While we have had an excellent teacher education and research program over the years, we are only neophytes in the preparation of physical educators for the inner-city. In spite of our early entry into the area, we have made some progress, and while other institutions have undoubtedly duplicated and surpassed our efforts, the following steps have been taken in an effort to provide an effective teacher education program for teacher-coaches of the inner-city. We have established or developed: flexible entrance requirements, compatible with university guidelines, for blacks from inner-city communities; input from inner-city teachers and coaches; open Seminars for students and faculty; involvement of high school students; visitations to inner-city schools; employment of personnel to assist in the program; special classes for prospective inner-city teachers; special advisors; a Center for inner-city physical education studies; special graduate program at the Master's degree level designed specifically for inner-city teachers and coaches; and graduate extension courses in the inner-city.

To facilitate an understanding and perhaps an awareness of the effect which each of these efforts has on the preparation and continued education of teachers in the inner-city, the following summaries are provided. While each description may generate more questions than it answers, it is hoped that other institutions may benefit from our efforts and extrapolate at least one idea and modify it for inculcation into their teacher preparation program.

FLEXIBLE ENTRANCE REQUIREMENTS

The identification and acceptance of students into our teacher education program has been a point of controversy and discussion among our faculty for some time. Isolating those pre-entry traits which are predictive of future success is difficult, if not impossible to assess. While we are somewhat restricted by the University's entrance requirements, the Special Educational Opportunities Program permits the waiving of arbitrary criteria such as class rank, College Board scores, selected subject placement scores, etc. As a result, we have admitted, after counseling with teachers and coaches from the inner-city, some prospective students who would not have typically been admitted. These students are doing quite well, they are off probationary status, and are of great assistance to us in developing experiences which will aid them upon their return to the inner-city. I should mention that these youngsters are not athletes. While they are interested in athletics, and some plan to coach, they are not on athletic scholarships. In fact, this has generated a question, but no answer, as to the extent to which one might expect the super college athlete, and perhaps pro, to return to the inner-city and teach physical education and coach. While no value judgement should be made in either direction, the identification of non-super athletes from the inner-city should be given serious consideration.

INPUT FROM INNER-CITY TEACHERS AND COACHES

The key to any success inner-city teacher preparation programs might experience is the seeking and acceptance of advice and counsel from the teachers and coaches in the inner-city. Without their advice, cooperation and actual involvement, the program will fail. Providing the appropriate logistics for campus visitations is important. Giving them an opportunity to talk with the former students in the university environment is important to the teacher, the student, and the department. We have found it is especially important for the students to have close relationships with former teachers and coaches as these people have the student's respect and admiration and are much better prepared to advise them on matters of personal concern. Often the students will relate matters of professional concern to their high school teachers which they might be hesitant to bring forth with their college professor. Providing the teachers with an opportunity to visit campus thus serves as an effective means of communicating with the student which, in essence, is what education is all about. Having the teachers on campus and discussing problems of mutual concern with departmental faculty, also serves as a stimulus and as an agent for deterring an occasional return to theoretical concepts and the security of ivory-tower terminology.

OPEN SEMINARS FOR STUDENTS AND FACULTY

Conducting open Seminars where undergraduate and graduate students and faculty, regardless of discipline, may **listen** and exchange thoughts with inner-city teachers and coaches who actually are on the firing line is informative and thought provoking. Many students have little or no idea what it is like to teach in the inner-city. Many of our faculty fall into the same category. Some students are altruistic at heart and want to make a contribution. Their interests and efforts should, however, receive guidance and direction. In conjunction with the exchange of thoughts between the teachers and faculty comes the realization of the handicap under which many well meaning departments must function: misunderstanding of the inner-city (and perhaps public school) situation by college teachers and students, rigid and antiquated operational procedures, stagnated curriculum patterns and degree requirements, inflexible graduate school standards, and to some extent apathy with all that extends beyond the realm of a narrowly defined area of concentration within a discipline which is subject to yearly dichotomization. While the people at the grass roots level will neither agree with nor appreciate these factors, they will be in a position to better understand the problems of immediately instituting a program for the preparation of inner-city teachers.

INVOLVEMENT OF HIGH SCHOOL STUDENTS

On the same basis and using the same rationale, communication, black and white high school students speak to Seminars and express what is going on in their physical education classes and how they feel this is preparing them for life. Providing these students with a forum in the absence of their teachers is also enlightening and provides a basis for additional course content and methodology. Having the students "tell it like it is," if a conducive environment can be provided, is an especially beneficial experience for the sophomore and junior major students contemplating teaching in the inner-city. While they are not too chronologically removed from the high school, the gap in environment is often great, sometimes challenging, and always informative.

VISITATIONS TO INNER-CITY SCHOOLS

As a regular part of the undergraduate experience, our department requires that an "Inspection Trip" be taken by all male majors with junior standing. This trip originated in 1940 under the direction of Professor C. O. Jackson and is designed to give our junior major students an opportunity to visit schools, review programs, observe teaching, look at facilities, and meet public school personnel under the leadership of several of our faculty. Two of our most recent trips involved observations of inner-city schools in Gary, 1969, and in Chicago (Dunbar H.S.), 1971. While this is not as meaningful as an extended observation of inner-city physical education, it is functional in terms of having 30-45 students come in contact with an inner-city school and community. The 1971 trip also included a visit to an affluent Chicago suburban high school. The comparison which was both real and immediate was the source for considerable discussion and inquiry. The nature and direction of the questions posed by the students invariably leads to questions about the experiences they will receive and comments on the utility of previous courses and experiences. It also has a balancing effect upon the faculty who direct the Inspection Trip.

EMPLOYMENT OF PERSONNEL TO ASSIST IN THE PROGRAM

Suffice it to say that a majority of teacher education programs in universities throughout the country do not employ faculty who may speak cogently to the kinds of experiences which are needed by inner-city physical educators. With restrictive budgets being imposed upon higher education, the employment of inner-city physical educators by universities has, unfortunately, a low priority. We have been fortunate to be in a position where we could employ a black teacher and coach with 25 years of experience in the Gary, Indiana, public schools. The awareness he has of the problems and their possible solutions far exceeds what could be gained by reading texts and making occasional observations of inner-city schools. Additionally, we were able to identify three black physical educators who had previous public teaching experience (and one also had considerable college teaching experience), who were interested in pursuing the Ph.D. We employed these people as teaching associates to assist us in our efforts. We also utilize the considerable abilities of one Chicago inner-city physical educator to teach graduate extension courses in Chicago.

SPECIAL CLASSES FOR PROSPECTIVE INNER-CITY TEACHERS

Every other semester, and more recently the last two semesters, we have developed courses designed specifically for those undergraduate students who contemplate teaching in an inner-city school. The course, PEM 199, may be offered every semester with the topic of the class changing each semester. These courses are typically problem oriented and are directed by blacks with previous teaching experience. We currently have two sections of this class scheduled for the second semester. These classes are designed for students from other areas of education and other disciplines and information about these courses is distributed throughout the campus.

SPECIAL ADVISORS

The University of Illinois, in conjunction with the Special Educational Opportunities Program, provides academic counselors for disadvantaged students. Our department also provides a special advisor for our black students in addition to the regular academic advisors. Being sensitive to the initial needs of youngsters from non-white, middle class environments is important. We have not as yet, however, been able to identify a definite advisement pattern. Some students talk with the special advisor, some do not. Success in terms of acclimation does not appear to be a function of the advisement process.

CENTER FOR INNER-CITY PHYSICAL EDUCATION STUDIES

More and more college programs are beginning to educate their students at sites other than the college campus. College curricula today, particularly those with an interest in the inner-city, should give premium attention to discovering ways of combining action with academe. Some experiences must move off campus and into the **community** if they are to be truly meaningful and effective. In cooperation with the Department of Health, Education, and Welfare and the Illinois Board of Higher Education, a grant has been awarded to investigate the feasibility of developing a Center of Inner-City Physical Education Studies. The proposed Center would represent a break from the traditional general academic structure and yet would retain a legitimate base with the university. The purpose of this Center would be to assist prospective teachers, teachers, and other concerned individuals, in achieving an understanding and appreciation of urban groups so that innovative ways of utilizing the teaching, research, and service resources of the university can make a positive contribution to the lives of people living in the inner-city. The organizational chart on page 9 is indicative, but not definitive, of the scope and purpose of the Center. The potential of its contribution is great and its ultimate existence and operation is dependent upon several complex variables.

SPECIAL GRADUATE PROGRAM

Our Graduate Department, through the cooperation of the Graduate College, will initiate a special graduate program designed specifically for teachers in the inner-city. We will function cooperatively with personnel from the inner-city in selecting approximately 15 teachers and coaches to enter the program where four units may be earned off campus and four on campus. (While this may be normal for some departments, it is a departure in policy at the University of Illinois). These students will not need to meet the typical entrance requirements, but the standards of performance will remain the same. We do not anticipate any problems in the latter area, as these individuals tend to be highly motivated when they can perceive logic and relevancy to their courses and field research experiences. Our discussions with leaders in the inner-city constantly bring out the need for concern about the teachers who are already in the field and who need and want additional education, input, and "re-tooling."

GRADUATE EXTENSION COURSES

As was mentioned previously, it is necessary to take the education to the people. Of even more importance is consideration of the content of the package to make it relevant. We have had graduate extension courses taught by inner-city personnel alone and cooperatively with University personnel every other semester for the past three years. The courses are offered under the title of PE 394, Special Topics, and the area of concentration and discussion changes each semester. Previous topics have been concerned with "The Teacher and Coach as a Counselor," "Crowd Control," etc. **Relevancy** is the key to making graduate courses meaningful and attractive.

OTHER DEVELOPMENTS

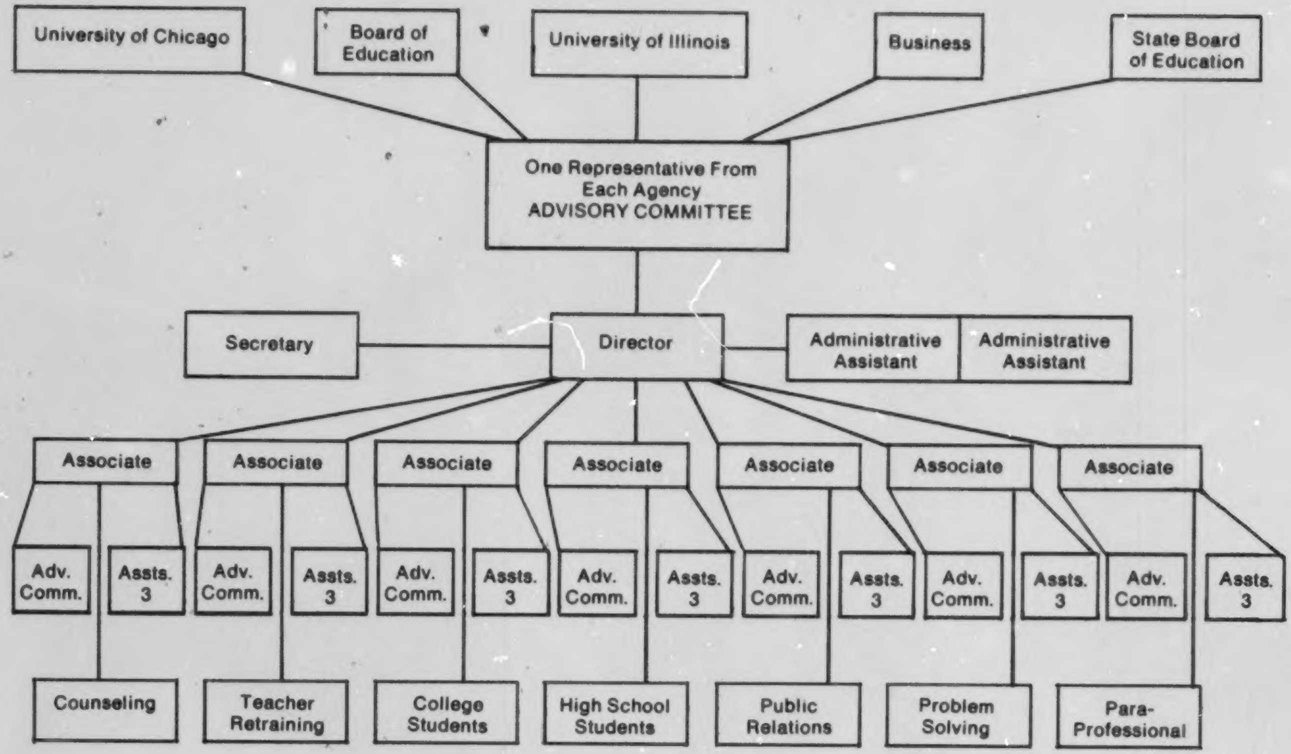
In addition to those just described, we have worked cooperatively with the University of Illinois Athletic Association and the National Collegiate Athletic Association in offering a Summer Sports Program. We are now in the process of conducting a Saturday Sports Instruction Program for elementary and Junior High youngsters in swimming, gymnastics, basketball and wrestling. An attempt has also been made to explain our efforts and concern via television and some of our faculty have presented special workshops and clinics (athletic training, injury prevention, etc.) to the inner-city schools.

SUMMARY

What we have attempted to do is in no way reflective of all that needs to and can be done. Other institutions are also making significant contributions. The capacity for assistance is greater in some institutions than in others. The onus is distinct, however. There must be an effort on the part of physical educators at the university level to get involved and to recognize the unique aspects of teacher education in the preparation of teachers for inner-city as well as other environments which offer distinct and different problems. In so doing, some degree of caution should be exerted. Cuban, in **To Make a Difference: Teaching in the Inner City** comments:

"In getting involved, higher education simply hasn't done its homework. In too many cases they have jumped into black communities with both feet, dis-

CENTER FOR INNER-CITY PHYSICAL EDUCATION STUDIES


University of Chicago
Board of Education
University of Illinois
Business
State Board of Education
One Representative From Each Agency ADVISORY COMMITTEE
Secretary
Director
Administrative Assistant
Administrative Assistant
Associate
Associate
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Counseling
Teacher Retraining
College Students
High School Students
Public Relations
Problem Solving
Para-Professional

regarding the expectations of community, administration, and teachers, persistently maintaining a superior-inferior relationship.

Some institutions have tried to avoid this pitfall by seeing their relationship as a junior partner to the school system, providing resources and talent to the schools, or as a broker between state and federal governments in order that identified sources of leadership in the schools and community can function with the assistance of the university. But such efforts are few. At first glance, a senior-junior partner relationship seems paradoxical—i.e., an outside agency trying to initiate change from within by working with the very people who have been "tagged" as incompetent and unimaginative. The trick is to parlay university talent and resources and ride piggyback on the sharp individuals who know the school system from inside and for years have been pushing for reform . . . . To date, it has been a shotgun marriage with both partners unwilling to see the advantages of the other. Divorce is always a possibility but forced marriages can be made to work, if both parties work at it.

The future of inner-city schools, whether higher education likes it or not, does not rest upon universities getting involved or sitting on the sidelines. Much is, can, and will be done with or without their involvement. The **quality** of the schools' efforts, however, can be raised or lowered by their presence or absence."

Reaction to "Teacher Education and Inner City Physical Education"

NELSON LEHSTEN
University of Michigan

1) It is evident to professional educators that change is occurring and will continue at an accelerating rate in the educational programs of our country. There is a growing concern that much of the change has been and currently is based on a principle of change for the sake of change—an expedient "cop out" from the challenge of change for the better. To accomplish the latter, educators, their institutions, community groups and the people in general will find it necessary to design, test and evaluate the plans for change. People will be required to go beyond their lip-service pronouncement of "being involved." The requirement of commitment and support will buttress the ideas with knowledge and human power to execute orderly and effective change in society and education.

As colleges and universities have acknowledged the problems of our cities and have all too frequently moved to rapid conceptualization of urban programs, it becomes evident that much of what is being done is conceived by campus based committees who have limited experience with the ghetto settings or the socio-cultural realities of the inner city school. Not all institutions, be they large or small, public or private are equipped to launch their resources in the invasion of academe to the heart of our metropolitan areas. Thus, the pattern by which Jack and his colleagues at the University of Illinois have moved to date is to be highly commended.

2) The effective changes that may take place in our inner city school systems will result from our awareness as college and university based faculty, that the public school personnel will determine if and when local change will occur. How such change is effected may be determined by cooperative effort between public school and college based personnel. It is essential that we examine what resources we can transport from our classes, research and experiences to the living laboratory of the "core areas" of the cities. We must be open to innovative efforts toward student study and experiences which are relevant to their academic and/or field-centered work experiences in urban programs.

3) Much of the academic bases of our field in sports, recreation, dance, health and safety are recognized for their potential values, especially when properly incorporated into the lives of the culturally disadvantaged.

4) The Southeastern Michigan Secondary Physical Education Study Group began in the fall of 1970 as a cooperative group of 22 professionals in physical education representing 16 school districts.

The group is now in its third year of occasional informal meetings to consider the "happenings" which have been occurring in junior and senior high physical education. Comprised of teachers and administrative personnel, men and women, they constitute a professional clearing house for inquiry, study, and suggestion. Tied loosely to the University of Michigan through several faculty of the Department of Physical Education, the group represents a working model of cooperative effort toward improved programs of physical education in a metropolitan area.

BASIC INSTRUCTION

The Trend of Required Physical Education 1971

DAVID D. CHASE
University of New Mexico

A 1944 survey completed by Green[1] surveyed 107 universities and colleges. The status of physical education then was that 96% of the sample required physical education for graduation. Of those, 46% had a two year requirement and 33% had a four year requirement. Of the 107 institutions, 82% stated that credit was allowed toward graduation.

A survey involving 246 universities and colleges conducted by Shaw[2] in 1946 showed that again 96% of the institutions required physical education for graduation. Credit was given in 67% of these institutions, showing an 18% decrease in just two years. Partial credit was given in 5% of the cases and 24% said no credit was given.

In 1958 Cordts and Shaw[3] conducted a survey of 300 universities and colleges. The 184 responses showed that 67% of the institutions required physical education for graduation. The 46% of the men's departments that had a two year requirement was the same percentage as for the 1944 survey. But the women's departments showed that 56% had a two year requirement. There were 61% of the institutions that said grade points counted toward graduation.

Pelton[4], in 1965, surveyed 123 four year universities and colleges in the six regions of A.A.H.P.E.R. It was found that 85% of the institutions surveyed required physical education for graduation. Only 58% of these institutions included the physical education grade in the cumulative grade point average.

A survey that involved 723 universities and colleges conducted by Oxendine[5] in 1968 showed that 87% required physical education for graduation. There were 7% of the institutions that had a requirement within certain departments only. Of the institutions reporting, 66% had a two year requirement. The physical education grade was counted in the grade point average at 63% of the institutions.

Using university and college catalogs, Ruffer[6] investigated 714 institutions in 1969. It was found that 86% required physical education for graduation and that an additional 6% had a requirement on a departmental level or were elective, and 8% had no physical education program. Physical education was required more than one year in 68% of the institutions. There were 80% of the institutions that included the physical education grade in the grade point average.

The questionnaire was constructed by the author in consultation with his advisor, Dr. Armond H. Seidler, and was used in a pilot study of thirty-four schools in the fall of 1970. The questionnaire was revised and sent to the Supervisor of Basic Instruction at selected institutions.

Subjects were selected from, **The College Handbook**, published by the College Entrance Examination Board in 1969. The subjects were selected on the basis of being a four year, coeducational, state supported university or college. The five largest institutions, in terms of student enrollment, were selected from each state.

When the data had been collected it was transcribed into code on an IBM Fortran Coding Form, GX28-7327-6 U/M 050, and then the data was punched on computer cards. The data was then run through the computer at the University of New Mexico on an Alphanumeric Frequency Count program-BMD04D, and a Simple Data Description program-BMD01D for analysis.

The data collected involved only the service program and is for the spring term of 1971. There were 250 questionnaires sent out and 192 were returned for a 77% rate of participation in the survey.

The results of the survey are as follows:

1) Is physical education required for graduation?

136 Schools or 71% said YES. 41 schools or 21% said NO. 13 schools or 7% said that it was required only by certain departments within the institution. 2 schools or 1% had no physical education.

How many semesters or quarters?

2% required less than one year. 53% required one year. 44% required two years. 0% required three years. 1% required four years.

2) Is the physical education grade recorded and averaged in the cumulative grade point?

152 schools or 79% said YES. 37 schools or 19% said NO. 3 schools or 2% gave No Response.

Is it pass-fail?

23 schools or 12% said YES. 166 schools or 86% said NO. 3 schools or 2% gave No Response.

May student option to take a grade or pass-fail?

80 schools or 41% said YES. 109 schools or 57% said NO. 3 schools or 2% gave No Response.

3) How many different activities were offered in your program?

The average was 23.5 activities per institution, with a High of 56 and a Low of 5.

How many are co-ed?

The average was 11.8 per institution, with a High of 43 and a Low of 0.

What was the total number of sections for the spring term of 1971?

The average was 80.6 per institution, with a High of 295 and a Low of 5.

4) What was the total enrollment of your institution for the spring term of 1971?

The average was over 10,500 per institution, with a High of 45,000 and a Low of 250. 2,009,790 was total.

5) How many undergraduate physical education majors did you have for the spring term?

The average was 259 per institution, with a High of 999 and a Low of 0.

Are physical education majors required to take a prescribed number of activity courses?

138 schools or 72% said YES. 31 schools or 16% said NO. 23 schools or 12% gave No Response.

How many?

The average was 8.8 per institution, with a High of 24 and a Low of 1.

Your school is semester or quarter?

135 schools or 70% said Semester. 53 schools or 28% said Quarter. 4 schools or 2% gave No Response.

6) Do you offer more than one level in any course?

168 schools or 88% said YES. 19 schools or 9% said NO. 5 schools or 3% gave No Response.

How many courses at two levels?

The average was 6.2 per institution, with a High of 54 and a Low of 0. 153 institutions have courses at two levels.

Three levels?

The average was 2.6 per institution, with a High of 45 and a Low of 0. 109 institutions have courses at three levels.

More?

The average was .22 per institution, with a High of 5 and a Low of 0. 26 institutions have courses with more than three levels.

7) Are the students required to wear a special uniform?

152 schools or 80% said YES. 36 schools or 18% said NO. 4 schools or 2% gave No Response.

Does student furnish own uniform?

144 schools or 75% said YES. 42 schools or 22% said NO. 6 schools or 3% gave No Response.

His Cost?

The average cost was $6.95, with a High of $50 and a Low of $2.

Does student rent uniform?

24 schools or 13% said YES. 164 schools or 85% said NO. 4 schools or 2% gave No Response.

His Cost?

The average was $8.13, with a High of $32 and a Low of $2.

Does your institution furnish the uniform at no cost?

16 schools or 8% said YES. 172 schools or 90% said NO. 4 schools or 2% gave No Response.

8) How many students participated in your intramural program during the spring term?

The average was 3,059 per institution, with a High of 36,678 and a Low of 100. 581,210 total.

9) Do you have a proficiency test schedule?

48 schools or 25% said YES. 136 schools or 71% said NO. 8 schools or 4% gave No Response.

Does student receive credit and/or grade if he passes the test?

30 schools or 62% said YES. 18 schools or 38% said NO.

10) How many minutes do your classes meet per week?

The average was 108.7, with a High of 240 and a Low of 40.

How many credits are earned?

The average was .928 credits per institution, with a High 3 and a Low of 0.

11 schools or 6% gave No Credit
20 schools or 10% gave .5 Credit
146 schools or 76% gave 1 Credit
3 schools or 2% gave 1.5 Credits
6 schools or 3% gave 2 Credits
1 school or .5% gave 3 Credits
4 schools or 2.5% gave No Response

11) Do you offer a course in Sports Appreciation?

14 schools or 7% said YES. 175 schools or 91% said NO. 3 schools or 2% gave No Response.

12) Is there a Foundation or Orientation course required before an activity course may be taken?

25 schools or 13% said YES. 161 schools or 84% said NO. 6 schools or 3% gave No Response.

Is there one offered and not required?

25 schools or 13% said YES. 160 schools or 83% said NO. 7 schools or 4% gave No Response.

13) Do you have an organized guidance program for students in the service program?

27 schools or 14% said YES. 160 schools or 83% said NO.5 schools or 3% gave No Response.

14) Do you prefer a required or elective program in Physical education?

94 schools or 49% favor Required
64 schools or 33% favor Elective
18 schools or 9% favor Both
4 schools or 2% favor Either
12 schools or 6% gave No Response

When compared with other surveys, this survey seems to indicate that the service program is different in terms of the requirement. The 1968 and 1969 surveys showed a requirement of 87% and 86% respectively and this present study has indicated a 71% requirement. An apparent drop of 15%.

The requirement varied from less than one year to four years. The one year requirement was most evident as 53% of the survey responded. The two year requirement was shown by a 44% response. This represents a large change from the 1968 study.

It seems that there has been no change in counting physical education in the grade point average when compared to the 1969 survey. The 1968 study is 17% lower in this category. There seems to have been a slight decrease in the percentage of schools with a pass-fail system. However, there is perhaps a new category of classification in this area, at least it was not previously treated by past investigators. That is the category of a student having the choice to take a course for the grade or on a pass-fail basis. There were 41% of the institutions reporting in this category. Whether this is a gain or a loss is not clear.

The number of different activities offered averaged 23.5, and several respondents stated that they had turned to life-time sports, i.e., scuba, judo, and fly-casting. This appeared to be the trend in the past also. The mean for coeducational classes was 11.8 which is an average of 50% of the classes offered. This seems to be a marked increase from the 1968 study.

Physical education majors averaged 259 per institution. With 72% of the institutions requiring their majors to take service courses it seems that the physical education department helps to substain the service program substantially as the number of courses varied from twenty-four to one and averaged nine.

There were 70% of the institutions on the semester system and 28% on the quarter system. It is not known if this has changed.

There were 88% of the institutions that offered more than one skill level in the same activity. Courses at two levels averaged six per institution. There were 57% of the institutions that offered courses at three levels and the average was three per institution. And 14% of the institutions offered more than three levels averaged .22 per institution. Loss or gain is not known.

Students are required to wear a uniform at 80% of the institutions. In 75% of the institutions students are required to buy their uniform at their own cost; 13% rent the uniform at their cost, and 8% have the uniform furnished by their institution.

There were over two-million students represented by this survey and 29.2% of them participated in intramurals.

A proficiency test schedule is offered at 25% of the institutions and of this number 62% give credit for passing the test. The 1968 study showed that only 14% offered a proficiency test.

The class meetings averaged 108.7 minutes per week which agrees with 48% of the 1968 study. Credits earned ranged from three to zero with 76% of the institutions giving one credit. The 1968 study showed that 43% received less than one credit. This is compared with only 16% for the present study. A large change.

Only 7% of the institutions offered a course in Sports Appreciation. An equal percentage is given from each type of program.

When it comes to requiring a Foundation or Orientation course before any activity may be taken just 13% did so. When asked if one is offered but not required 13% answered yes. Only 14% offered an organized guidance program for the students. No figures for comparison are available in these categories.

When asked what program was favored, required or elective, 49% chose required, 33% chose elective, 9% preferred both—that is, require one or two courses and then go elective. Either program was adequate with 2%, and 6% gave no response. No figures for comparison.

The following conclusions may be drawn within the limitations of this survey:

1) The trend of the required service program is different as evidenced by a drop in percentage of the required programs in the universities and colleges across the U.S.

2) The requirement in the service program is becoming less demanding in terms of time, as evidenced by an increase in the one year requirement over the two year requirement. A 19% change or shift was evidenced from 1968 and 24% over the 1969 study.

3) Coeducational classes have increased in number.

4) Proficiency test scheduling has increased almost twice to what it was in 1968.

5) The number of credits given has shifted solidly to one. This is shown by a 19% increase to 76% of all reporting institutions allowing one credit per class.

6) There is a desire to move farther toward elective programs, on a continuum, as this survey showed that 33% of the institutions surveyed preferred elective to required programs. And as reported, 71% of this study have required physical education. This would indicate that this percentage would decline in future years. As additional support of this conclusion, only 49% of this survey preferred a required to the elective program.

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Required Physical Education Who Needs It? We Do!

CLYDE PARTIN
Emory University

INTRODUCTION

The purpose of this paper is five-fold:

I. To make a statement regarding change and to present a philosophical basis for required health and physical education programs.

II. To present the required program of Health and Physical Education as it now exists at Emory University.

III. To discuss the defense of the required program when it came under attack by the faculty of Emory University.

IV. To present the results of a student-sponsored referendum at Emory on possible changes for the program of Health and Physical Education.

V. To present the results of a questionnaire administered by the Division of Health, Physical Education, and Athletics at Emory to approximately 650 freshmen and sophomores who were enrolled in the program.

I. STATEMENTS REGARDING CHANGE AND PHILOSOPHY

To say that we are living in an era of change would, of course, be a gross understatement. Laws have changed, traditions have been shattered, "tried and true" programs have been tossed by the wayside, some old concepts have been relegated to the waste basket, and many other standard procedures have been long forgotten. Practically all facets of our lives have been touched in one way or another by change. Whether we want to change or not is irrelevant. We are being forced to change; and if we are honest with ourselves, we must admit that much of the change is for the good. However, let me hasten to say that there are many values that have not changed and will not change. We have always admired certain qualities in individuals—honesty, integrity, loyalty, courage—to name a few. These have always been desired qualities in people and always will be. It is essentially these very qualities that it takes in an individual today to face up to the facts of life in looking at our programs of health, physical education, recreation, and athletics. We must be honest to admit that change is needed; we must have the integrity to carry these changes out; we must be loyal to our profession in making these changes; and we must have the courage of our convictions to "tread where angels fear to tread." In short, if we want to stay in business, we must indeed make changes and make them fast. For some of you, perhaps these changes have been made; for others, perhaps you are now in the process of change; and perhaps still others are "thinking" about changes but have not had the time, the opportunity, or even the desire to change. Even though I am aware that it is obvious to everyone, I feel I must say that certainly we should not change simply for the sake of change. There are many good features of our programs that need to stay as they are, but surely even the staunchest advocate against change must admit that regardless of who we are or how good our program is, it can always be improved.

One question at the moment that is affecting all education is the matter of required courses. This seems to be true in many of our disciplines and is certainly not limited to physical education. I think this is true because today's students are more inquisitive, more alert, more sophisticated than students of the past.

Today's student is concerned with the "why" of physical education. It is no longer enough to say "do this" or "do that" and not expect to be challenged as to "why do this" or "why do that." Certainly this is as it should be and none of us would want it any other way. It is much more challenging to teach the inquisitive student, the student who is interested, and the student who wants answers than just a student who blindly follows our directions, no matter how good or bad our directions might be.

In regard to the question of required physical education from a philosophical standpoint, Dr. Warren Fraleigh proposes that educational requirements in a free society must meet the following three criteria:

1) They must be in harmony with human nature.

2) They must be appropriate to the demands of the society in which they are proposed.

3) They must be determined by the legitimate methods recognized in the society.

In relation to the first criteria, it needs to be decided if physical education, as a means of education, is compatible with human nature. According to Dr. Kenneth Hansen, the answer would evidently be in the affirmative. He states:

"Utilizing the whole range of behavioral and physical sciences again we have found beyond any reasonable doubt that mind and body are simply names for different behavioral aspects of a single unitary organism which we would call the person . . . it is almost impossible to avoid believing that mind is a kind of behavior which cannot be abstracted from the total organism." Fraleigh says that " . . . if this statement is accepted as an accurate conception of mind and body, it indicates an evaluation of human nature which is harmonious with the use of physical education as a means of education. Thus, it would seem that the unitary nature of man would require that his proper education involve a variety of experiences utilizing various means which are primarily physical, intellectual, social, aesthetic or spiritual."

The second criterion asks if requiring physical education is appropriate to societal demands in the United States. Since this might appear to cause a conflict because of our tradition of emphasis upon self-determination and free choice by individuals, the question arising out of the conflict is when does a free society have authority to require certain behavior in common of the individuals in that society? The most apparent answer, says Fraleigh " . . . is that such authority is proper when there is collective agreement upon the desirability of the behavior." However, this "will of the majority" has traditional validity but it also has intrinsic potential for dangerous interpretation. Fraleigh proposes that a reasonable restriction to be placed upon requirements suggested by majority will is that of essentiality. Dr. Robert Montebello expressed it by saying, "To some faculty, requiring anything in a free society is to be abhorred unless the need is demonstrable and great."

In discussing individual freedom versus social compulsion, Dr. Frederick Gruber says, "In general, a relativistic value system would allow that all actions and thoughts which affect the individual alone are private and are entirely the affair of each individual. Also, those acts of the individual which are public, but which are not detrimental to the society are his own concern."

Fraleigh says, "These points of view distinguish between the justification of requiring things of value and requiring things of essential value in a free society." In essence, " . . . the fact that a given pursuit has value is insufficient to justify its requirement in a free society." Consequently, a proposed physical education requirement suggested by majority will must meet the qualifying restriction of essentiality. How then is essential value determined? "Essentials are those things which are indispensable to survival,"says Fraleigh. If indeed then we mean survival of fundamental values, then we must recognize these values are dependent upon full development of the potentialities of individual citizens. Such is the basis of compulsory education and, correspondingly, such is the logical basis for requirements within the educational process.

If there are common functions which citizens must perform effectively in order to insure survival, it is logical to assume that educational requirements should reflect these common functions. Wegener postulates the ten basic functions of man as intellectual, moral, spiritual, social, economic, political, physical, domestic, aesthetic, and re-creational. Although scientific evidence might not be available to support these ten postulates, history shows that men have been obliged to participate in the ten basic functions.

Physical education, by its nature, contributes significantly and uniquely to many of the ten functions. The **means** used by physical education to contribute to these functions is relatively unique among subject matter areas in education.

Physical education stands almost alone in its type of contributions to the physical function. It needs emphasis here that school physical education in contemporary United States is probably the **only** institution in which society can be assured that the physical function has specific and organized attention devoted to it.

Because of its significant and unique contribution to the ten essential functions of man, it is concluded that requiring physical education is appropriate to the demands of society.

The third criterion states that educational requirements must be determined by the legitimate methods recognized in the society. Since present physical education requirements have for the most part been determined by duly elected representatives, it is concluded that the third criterion has been met.

In summary, Fraleigh states, "Requiring physical education guarantees positive freedom for individuals to develop themselves in the ten basic functions by the unique approach of large muscle activity."

II. REQUIRED PROGRAM OF HEALTH AND PHYSICAL EDUCATION AT EMORY UNIVERSITY

A. The Philosophy

The Division of Health, Physical Education, and Athletics serves the entire University. The Division is closely coordinated with the general education program of the University for the realization of the most effective educational outcomes. The entire program endeavors to advance significantly the purpose which Emory regards as most fundamental.

The Division is seriously engaged in seeking new patterns for the curriculum and new techniques in teaching; it aims at the development of activity skills, more effective movement, and improved human relations as well as more efficient physiological functions.

Through health and physical education activities, the Division endeavors to contribute to the full potential of the remarkable human body to the end that it might approach its best in vibrant health, in skill, in joy, and in creative use. The potential of man is judged most significantly by what he has thought and done at his best.

The total program as conceived by Emory University offers the student a wide range of activities adapted to his sex and to his individual needs and interests. It does not expect all students to do the same things; nor is it geared **only** to the good athlete. It includes ample opportunities for **all**—from the varsity team member to the student who seemingly has little skill or ability. There are opportunities to participate in a wide variety of games, sports and dance, in camping and outdoor activities, and special exercises for those who need them for conditioning, rehabilitation, or "corrective" purposes. The program aims to provide opportunities for **active** participation **now** as well as for a continuous participation (active and passive) throughout life.

Emory University's required program is built on the premise that the attainment of good health and physical fitness are the logical and necessary starting points for the "pursuit of excellence" in all things, that physical vitality promotes intellectual vitality and contributes to all-around performance, and that physical vigor and a variety of skills enhance personal resources for social and civic endeavor. In short, participation in health, physical education, and recreation education is an essential aspect of a balanced and productive life.

The Health and Physical Education Division attempts to develop the basic skills and physical fitness necessary for participation and enjoyment of selected sports activities. It is our hope that each student will actively participate in a sport or sports while at Emory and in the years that follow graduation. Enjoyment of the sports activities and development of basic skills are given primary emphasis in the activity classes while health education is taught in a separate but equally important course.

B. The Curriculum

All freshmen and sophomores are required to participate in six quarters of regularly organized health and physical education classes at Emory University.

The curiculum includes courses designed for skill development, general physical conditioning, and health education. The Division feels strongly that these types of courses are necessary and that they complement each other in achieving the aims of the Division. Those courses which had limited student appeal have been discontinued. Several activities requested by the students have been made available, such as snow skiing, scuba diving, bowling, and independent study courses. The

Division has been extremely well-pleased with the success and overall excellence of the health education course. It is felt that this is primarily due to the fact that professional specialists are invited to teach in each specific field studied, thus giving the course a special kind of "importance" and variety.

The lecture-demonstration-practice method of teaching is used primarily in the activity courses while the health education course is conducted as a lecture-discussion course. Students are provided with additional written information as a supplement to actual faculty instruction in the sports activity courses.

The physical education activities program includes the following courses:

Archery (coed)
Badminton (coed)
Basketball (men & women)
Bowling (coed)
Camping (coed)
Diving (coed)
Exercise & Fitness (women)
Fencing (coed)
Golf (coed)
Gymnastics (men & women)
Handball (men)
Independent Activities (men & women)
Modern Dance (coed)
Racketball (men & women)
Riflery (coed)
Scuba Diving (coed)
Snow Skiing (coed)
Soccer (men)
Softball (men & women)
Swimming (coed)
Tennis (coed)
Touch Football (men)
Track and Field (men)
Tumbling (men & women)
Volleyball (men & women)
Weight Training (men)
Water Safety Inst. (coed)

(Several of the activities are offered not only on the beginner level but also on the intermediate and advanced levels.)

Written and skills tests are given in all of the activity courses. For the majority, the individual instructor administers his test to his particular class. However, there are several activities where a departmental examination is administered. The written tests are primarily objective with a few discussion questions included in some of the tests. Letter grades (A-B-C-D-F) are given for class performance, with grades being determined by achievement, application of skill, and written and skill tests. Because a major portion of the class time is devoted to actual performance in the activity, each student is expected to reach a level of proficiency in the respective activity.

All entering freshmen are given a swimming test during the first week of classes to determine the proper swimming classification of the individual. The test is a 50-yard swim for time. The faster swimmers are placed in the swimming course for the fall quarter, the next fastest group participates in swimming during the winter quarter, and the slowest and non-swimmers will be in swimming during the spring quarter. Also during this first week of classes all freshmen men and women are given a physical fitness test which consists of 5 items. The test items are especially selected for men and women because they are felt to be pertinent to the activities which are included in the required, intramural, and intercollegiate programs. It also enables us to know from year to year the physical fitness status of entering college freshmen at Emory.

There are at least ten outdoor teaching stations, and the gymnasium provides ten teaching stations. The capacity of the gymnasium and athletic fields is limited and controlled by showering and locker room space, both for men and women. The present shower and locker rooms provide accommodations for one-hundred-and-fifty men an hour and about half that number of women.

The Freshmen Program

a. The physical conditioning course consists of lectures or physical conditioning, calisthenics, and various methods by which one may keep himself physically fit. Such programs as circuit training, interval training, calisthenics, and combinations of these programs are introduced to the student. The major objective of the course is to teach the student various methods of gaining and maintaining a state of physical fitness.

b. The Health Education Course, directed by Dr. Elizabeth Adams, Lecturer in the Division of Health and Physical Education, is a most vital part of the total program. This program is now in its sixth year and meets in the Emory University Hospital Auditorium. The course depends on volunteers as lecturers in areas very vital to the life of a college student. The largest single group, by profession, which contributes to the course by their lectures is medical doctors, with the second largest group being Ph.D.'s.

The course involves lecture and spontaneous discussion during and individually motivated after-class questions and discussions. Two take-home quizzes and a third in class quiz are averaged for grading purposes.

It is intended that information shared through lecture and discussion will serve students in the realm of problems and disease prevention as well as appreciation for specific factual data relevant to health protective care. Incidental inquiry of individual students regarding personal and/or medical questions are at times understandably time-wise opportune.

c. Swimming—the swimming course at Emory is designed primarily to provide knowledge and skill training in watermanship exercise which will make the student capable of coping with a wide variety of circumstances in and around the water. This is a course that is required of all freshmen students and is co-educational. The major emphasis in the course is one of survival (see attached).

The Sophomore Program

The sophomores are allowed to elect an activity which they would like. They are asked to register for a course at the University's regular registration time. Usually, it is possible to give them their first choice.

Without doubt, the courses chosen most are the individual and dual sports. Certainly, this speaks well for the student who obviously wants to become better skilled in the carry-over activities.

Some of the sophomore courses, such as handball and soccer, are taught for the entire quarter, while others, such as golf and badminton, are offered in one-half quarter combinations. By doing this, students are exposed to a wider variety of activities. This policy is consistent with our philosophy of providing instruction in a number of activities so as to broaden the total physical education program.

Activity schedules for students enrolled in independent study classes are individually arranged. This type of study program allow the more highly skilled person to progress at his own rate and to be freed from more elementary group level instruction. It also allows increased teacher-student contact and contributes to that aspect of individualized instruction, which is frequently non-attainable in team and individual sport classes. While student opinion has largely been most favorable for this approach, the Division is aware that control of uniform standards in actual time spent in participation and degree of supervision will ultimately determine the success of the program.

Academic Credit

The Division feels that the college requirement of five quarters of Physical Education and one of Health Education for academic credit makes a positive and significant contribution toward assisting the Division in attaining its objectives.

Academic credit for Health and Physical Education is awarded on the basis of one-third quarter hour for each hour of classroom work, with letter grades and quality points awarded as in any other college course. Two years of work (six quarters—six credit hours) is required for graduation, and grades are computed in the overall grade point average.

III. DEFENSE OF THE REQUIRED PROGRAM AT EMORY

In speaking of a defense of the required program of Physical Education at Emory, it should be made clear at the outset that Physical Education did come under attack because it was a requirement, not because it was Physical Education. Other required subjects, including Romance languages and English, came under attack at the same time. The matter was first brought before the College Curriculum Committee. It was promptly referred to a sub-committee. The decision of the sub-committee was that Physical Education should remain a two-year required program. However, when the matter was referred back to the full

College Curriculum Committee, it was decided to make Physical Education elective. The matter was then sent to the full college faculty for consideration and vote. At this point, the Division of Health and Physical Education had an opportunity to present its reasons why Health and Physical Education should not be made elective but remain a two-year required program.

The major thrust of the Curriculum Committee proposal undoubtedly was that all specific requirements should be abolished. Some of their reasons were as follows:

1) Today's students are better prepared than they were in the past.

2) Lack of requirements for specific courses should tend to make a professor make his course more attractive to students.

3) Keep general requirements in three major divisions, that is, Social Sciences, Natural Sciences, and Humanities, but at a reduced level.

The Division of Health and Physical Education responded to these reasons and added other reasons why they felt that Health and Physical Education should remain required.

1) With regard to students being better prepared today than in the past, presumably they would mean better prepared in all areas from elementary school on up. Unfortunately, we have not found this to be the case at Emory University in physical education where the average motor ability score of incoming freshmen is approximately the same as was the average score in 1961. While students are indeed better prepared in many disciplines, physical education does not seem to be one of them. In fact, statistics still show that approximately 50% of our boys and girls have no formal programs of physical education in the elementary and secondary schools. While great emphasis has been placed on elementary school physical education in the past half decade or so, and, admittedly, great progress has been made in this vital area, still the impact of such programs at the secondary and collegiate levels has not yet been felt. It is sad to say but it is a fact that for far too many of our elementary school children the so-called physical education period is still one of "playing house" and sitting under the shade trees. I must say to you that until such time as this problem is remedied, those of us in physical education are going to continue to be in serious trouble. You know and I know that it is during these formative years that proper attitudes and habits toward physical education and physical fitness are developed. We are living in a highly mechanized and automated age in which there exists a definite need for physical activity for persons of all ages, and unless our children are given the opportunity—and required—to participate in activities of a strenuous nature at this early age, it is extremely doubtful that physically educated individuals will be coming out of our elementary schools.

> "Fewer than 5 percent of elementary schools even have gymnasiums. Overworked women teachers sit on benches in the schoolyard, throw their boy pupils a softball and their girls a jump rope. The resulting bedlam is called 'physical education.'
>
> "Only a few states require **daily** physical education for **all** grades—even though 30 minutes of vigorous physical activity each day is the minimum deemed necessary by experts for a child's proper bodily development. This partly explains why 14 percent of U.S. children have no school physical education programs. Another 27 percent participate merely one or two days a week. In parochial schools, the statistics are reportedly worse. And in many vocational schools, gym classes are held only in alternate semesters.
>
> "A National Education Association poll of 1.5 million public school teachers several years ago revealed that a majority believed pupils receive too little exercise and are physically unfit. Yet 70 percent of the teachers opposed devoting more school time to help correct this deficiency." ("Family Health," September, 1970, p. 16.)

2) The point that lack of requirements for specific courses should tend to make a professor make his course more attractive to students is a point well taken. I do believe it would stimulate many teachers who have been doing

things the same old way for many years. However, as I see it, the fallacy here is that despite the work of the professor to make his course more attractive, we would not reach the student who needs physical education the most. I suspect the gifted person would continue to take physical education, but the mediocre, and especially the non-gifted student physically, would in all probability not take an elective type course. Consequently, the person who needs physical education the most would not be getting it. The program must be required if we are to reach the total population. If, evantually, good programs of physical education are instituted in all of our elementary and secondary schools, then perhaps an "elective" type program might indeed be feasible for colleges. However, as far as elementary and secondary schools are concerned, I would think, that required physical education should be the norm. People play what they like to play and they like to play and take part in activities in which they do well. Consequently, I see this as meaning that physical education must be a requirement in order to serve the total school population and prepare them for varied activities through teaching the various techniques, skills, and strategies of various games.

3) In regards to number of hours of uniform requirements being reduced in the divisions, it was pointed out that while it was true that the uniform requirements were being cut in half in three other divisions (from 90 to 45 hours), it was also true that under the Curriculum Committee proposal the requirements in Physical Education would be cut from six hours to zero.

The Division of Health and Physical Education presented further important arguments in favor of keeping the program required as follows:

1) Since there is no major in Physical Education at Emory, there would be no "built-in" requirements as there would be in the other three divisions (Social Sciences, Natural Sciences, and Humanities).

2) Another extremely important reason for keeping programs on a required basis is the effect the teaching program might have on the intramural program. We must remember that for many boys and girls the physical education class is their first experience with games and sports. In a well-planned program of instruction, their appetites should be "whetted" so that after intensive instruction they will be **ready** and **want** to participate and put into practice what they have learned. So, in essence, the required instructional program prepares the student for the laboratory part of the course, that is, the intramural program.

3) An article in the January 1969 issue of the AAHPER Journal, entitled "Status of Required Physical Education Programs in Colleges and Universities," by Joseph B. Oxendine, stated the following:

(1) 632 institutions (87%) reported a physical education requirement for all undergraduates.
(2) An additional 7% reported a requirement for students in certain departments or schools.
(3) Two-thirds of the institutions requiring physical education required two years.
(4) It was reported that letter grades were given at 85% of the co-educational schools.
(5) These results were obtained from 632 institutions reporting out of a total of 723 questionnaires that were sent out (69% return).

Thus, if Emory University wants to stay in the mainstream of college physical education, the requirement of two years should remain.

4) It was pointed out that the Division of Health and Physical Education is concerned with the four-fold development of man and that our Division is the only one in the University so concerned. We are interested in the following:

(1) Organic—total body-ability of human body to sustain effort, resist fatigue, recover rapidly.
(2) Skill or Neuromuscular Development.
(3) Interpretive Development—ability to think.
(4) Emotional Development and Social Development—attitudes and feelings in various situations.

5) While we are living in an age of fantastic medical progress, it is still a fact that approximately 55% of the deaths in the United States today are caused by some type of heart disease or stroke. Other facts are equally disturbing; for example:

(1) About a quarter of a million people died in 1963 who were between the ages of 25-64.

(2) Heart disease is predominantly, but by no means exclusively, a cause of death among older people. About 72% of the 707,830 deaths in 1963 occurred in persons aged 65 and over.

(3) Heart disease is becoming more of a problem in the younger age groups. It is now the fifth leading cause of death in the 15-24 age group.

(4) An estimated 14.6 million Americans are suffering from definite heart disease and another 13 million from suspected heart disease.

(5) Men outnumber women as victims by a factor of more than one-third. This is a relatively new and still incompletely understood phenomenon. Until about 1930, the heart disease rates for men and women were of about the same magnitude.

(6) Women were more likely to be suffering from hypertensive heart disease, while men were more likely to have coronary heart disease.

(7) There is higher mortality for both men and women in the eastern and far western states, with lower mortality in the central and mountain regions. The highest mortality death rates from heart disease and stroke are in the southeast.

(8) Approximately 90% of heart disease in this country takes the form of heart attack or heart failure, both usually brought on by coronary arteriosclerosis.

In 1957, Dr. Paul Dudley White said that "Although it is true that adequate statistics about the effects of exercise on longevity and health are lacking, we do know of certain advantages of exercise" According to Dr. White, some of these are the immediate physical effects on the circulation; the improvement of the tone of the diaphragm which results in not only bringing oxygen to the lungs with removal of carbon dioxide, but also for the suction of blood into the heart; the activating of the smallest blood vessels—arterioles, capillaries, and venules; and, the beneficial effect of exercise on the nervous system and the psyche.

In 1967, Dr. White stated that a daily regimen of vigorous exercise is essential not only for physiological reasons and physical fitness per se, but it is vital for the optimal function of the brain for retardation of the onset of serious atherosclerosis which is beginning to appear in early adult life and even in teenagers. It is also essential for longevity and a useful and healthy life for our older citizens. It is little short of criminal to educate our young people mentally to have them die early of heart attacks and strokes.

IV. RESULTS OF A STUDENT-SPONSORED REFERENDUM AT EMORY

A student-sponsored referendum regarding possible changes for the Physical Education program was held in the Spring of 1971.

Students were able to indicate their preferences for one of six of the following alternatives:

1) Maintain Physical Education as required with mandatory grade—6%.
2) Maintain Physical Education as required but with S/U option—34%.
3) Make Physical Education required with mandatory S/U—17%.
4) Make Physical Education an elective to be taken with grade required—3%.
5) Make Physical Education an elective with S/U option—32%.
6) Make Physical Education an elective with mandatory S/U—8%.

Thus, the results of the student referendum indicate that 57% of the students voting prefer required Physical Education and 43% prefer to see Physical Education as an elective.

V. RESULTS OF A QUESTIONNAIRE ADMINISTERED BY THE DIVISION OF HEALTH AND PHYSICAL EDUCATION AT EMORY

In the Spring of 1970, a questionnaire was administered to approximately 650 freshmen and sophomore students who were enrolled in the required program of Health and Physical Education at Emory University.

Some of the questions asked and the responses received were as follows:

1) Did you participate in a program of Health and Physical Education while in high school or prep school?

	Yes	**No**
Freshmen Male	167	11
Freshmen Female	124	23
Sophomore Male	169	16
Sophomore Female	124	5

2) Were you exempt from Health and Physical Education in high school or prep school?

	Yes	**No**
Freshmen Male	29	150
Freshmen Female	23	111
Sophomore Male	35	148
Sophomore Female	15	113

3) Were you exempt from Physical Education for medical reasons in high school?

	Yes	**No**
Freshmen Male	10	169
Freshmen Female	11	123
Sophomore Male	11	171
Sophomore Female	8	120

4) Were you a member of a varsity squad or "B" team during your high school or prep school days?

	Yes	**No**
Freshmen Male	111	68
Freshmen Female	50	84
Sophomore Male	111	79
Sophomore Female	40	87

5) Three courses at Emory are now required in the Health and Physical Education Program. Which of these, if any, do you feel should be continued and on what basis?

	Required	**Elective**
Health		
Freshmen Male	85	61
Freshmen Female	43	71
Sophomore Male	111	62
Sophomore Female	43	66
Swimming		
Freshmen Male	114	55
Freshmen Female	73	57
Sophomore Male	130	47
Sophomore Female	77	44
Physical Conditioning		
Freshmen Male	56	100
Freshmen Female	42	83
Sophomore Male	57	102
Sophomore Female	36	81

6) Do you favor spreading the present 6 required hours of P.E. over the first 2 years (Freshman-Sophomore) or do you favor spreading the present required hours of P.E. over the first 3 years (Freshman-Sophomore-Junior)?

126—2 years
48—3 years

7) Are you of the opinion that Physical Education at Emory should be:

	Required	Elective
Freshmen Male	76	101
Freshmen Female	65	63
Sophomore Male	121	61
Sophomore Female	76	52
Others (Jr.-Sr.)	30	20

8) If Physical Education were elective, would you take it?

	Yes	No
Freshmen Male	133	38
Freshmen Female	99	28
Sophomore Male	127	48
Sophomore Female	104	22

9) If it were elective, would you take Physical Education for:

89—0 quarters
14—1 quarter
43—2 quarters
173—3 quarters
88—4 quarters
11—5 quarters
90—6 quarters
103—more than 6 quarters—how many more than 6 quarters
no answer

10) Which of the following grading systems do you prefer?

	Letter Grades	Pass Fail	Pass-Fail Option
Freshmen Male	18	81	75
Freshmen Female	5	66	55
Sophomore Male	21	95	68
Sophomore Female	1	62	64

In analyzing this data, several facts emerge:

1) That 91% of the men and women took part in some form of physical education while in high school. In all probability, this was in the 8th and 9th grades. The question of "Which years did you take part in Health and Physical Education in high school?" was asked on the questionnaire but results were somewhat confusing.

2) That only 17% of the men and women were exempt from Health and Physical Education in high school.

3) That only 6% of the students were exempt from Physical Education for medical reasons.

4) That approximately 48% of the students were members of a varsity squad or "B" team during their high school days.

5) Of the three courses that were required at Emory at the time of the questionnaire, the following observation of the results is made:

Health—61% of the males felt that Health Education should be a required course while only 39% of the females felt that it should be required.

Swimming—71% of the males felt that it should be required, while 60% of the females felt that it should be required.*

Physical Conditioning—36% of the males felt Physical Conditioning should be required, while 32% of the females felt it should be required.**

*This does not bear out the approximately 98% of the students who answered in the affirmative on a questionnaire administered after each quarter's swimming course.

**Exercise and Fitness is one of the more popular courses for the girls in our program; hence the 32% is puzzling.

6) In answer to the question "Are you of the opinion that Physical Education at Emory should be required or elective, it was interesting to note that 57% of the freshmen males felt that it should be elective;

51% of the freshmen females felt it should be required;
67% of the sophomore males felt it should be required;
60% of the sophomore females felt it should be required.

7) 78% of the freshmen males indicated they would take Physical Education if it were elective; 78% of the freshmen females; 72% of the sophomore males; and 82% of the sophomore females indicated they would elect Physical Education.

8) If elective, 27% would take it 3 quarters. If elective, 14% would take it 6 quarters. If elective, 16% would take it more than 6 quarters.

9) As far as grading systems are concerned—7% voted for letter grades; 50% x voted for pass-fail: 43% voted for pass-fail option.

With regard to the question of letter grades as opposed to pass-fail, it is interesting to note that in the academic year 1967-68, the grade point average for five quarters for 3439 men was 3.20. For 2132 women, the grade point average for five quarters was 3.20. A further breakdown would indicate that not only are we helping the physically gifted student but the physically non-gifted student as well.

For example:

The top 30% of the class had an average motor ability percentile score of 76.30, with a grade point average of 3.40.

The bottom 30% of the class had an average motor ability percentile score of 18.50 and an average grade point score of 3.10.

The upper 10% of the class had an average motor ability percentile score of 92.0 and an average grade point score of 3.75.

The bottom 10% of the class had an average motor ability percentile score of 6.80 with an average grade point score of 2.94.

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Challenge: A Chance for Change in Our Colleges

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CHANGE

Change may be defined as a process of alteration, or replacement with another. At Appalachian State University, we view change as a process and therefore on-going, and we believe that to stand still in today's world is to decay. The result is to continually reassess and to discard that which doesn't work. Some of the best sounding ideas simply aren't pragmatic, but without the courage to accept the challenge to try them, it is impossible to know what will work and what will not.

The very location of Appalachian, in mountainous Boone, North Carolina, near the remote borders of Tennessee implies built-in change. The student body of about 7,000 are from middle America and generally view physical education in a favorable light. The Department of Health, Physical Education, and Recreation graduates about 175 men and women a year, and about fifty full-time graduate students are enrolled during the academic year. The faculty of thirty combined men and women is diverse as to age, location of experience, and educational preparation. All appropriate activities in the service and major programs are coeducational. The facilities are principally located in a structure with the longest unsupported pre-caste concrete roof in the country. The indoor facility houses the usual special areas for dance, rehabilitation, gymnastics, handball, research, weight training and swimming, as well as the gymnasiums. The outdoor facilities consist of several multi-purpose fields, a total artificial surfaced stadium, which is used extensively for classes, and two dozen tennis courts.

STUDENT INVOLVEMENT

You have now had the opportunity to view the background of the school. We have tried to keep pace with the changing times in a number of ways. Remember change occurs in any number of forms, shapes, sizes and movements. One of the directions which we view as important for change is student involvement in departmental matters. One aspect of departmental student involvement which has been developed at A.S.U. is the Student Advisory Council. The council is composed of five to ten interested students who wish to help advise the chairman of the department. They meet informally with the chairman or a faculty member twice a month to discuss various aspects of departmental problems. Such items as locker room problems, classroom or facility problems and curriculum problems are freely discussed. This group of students is confided in by the chairman with such matters as personnel problems and future personnel selection for the faculty. The students on the council are both male and female as well as being representative of various academic classes of students.

Students are also invited to attend departmental staff and committee meetings on regular and irregular bases. The departmental graduate assistants have voting rights in all meetings. The undergraduate students have voice but no vote in staff meetings and all have voice and vote in committee meetings. With this concept of student participation the faculty is made more aware of the students' problems, needs, desires and concerns.

The department has also attempted to develop an evaluation of courses and faculty. The evaluation process has undergone a number of steps in achieving its current form. In the beginning we provided a general form for optional use of any interested faculty member. This initial form provided areas for rating the course itself and the professor on a continuum from poor to excellent. A comment section was provided for the students to indicate specific reasonings for various ratings. This form was used in both major and service classes.

Next the procedure was formalized through a departmental faculty vote and all faculty were evaluated by a random sample of junior or senior majors. The new evaluation rating form employed a 1-10 scale with a section being provided for specific comments. The third stage of the evaluation procedure took shape into a shorter more easily handled form. Each faculty member was evaluated on each specific course for which a student had had him. The students completing the evaluations were now the returning student teachers who were mid-way through their student teaching experience. It was surmised that these students could better evaluate materials and course content for relevancy than could a simple random selection of juniors and seniors, most of whom had had no teaching experience. The fourth step in the evaluation process was to go to computerization of the form for ease of handling the data of 500-700 evaluations. Each new card provides a section for specific comments and each card rates an instructor on a specific course or courses. All cards are eventually returned to the instructors at the completion of the evaluation. One item of interest with these individual course ratings of instructors is that we can now find courses in which a certain faculty member is extremely weak or extremely strong and schedule him accordingly. The entire university faculty has undergone student evaluations for the past two years. These evaluations are published and made available to the university community. It is hoped that in future evaluations our first year teacher graduates will have the opportunity to provide input.

One other input we have used for evaluation purposes is a final exam evaluation question—that is actually structuring an exam question concerning evaluation of the class. The exam question is weighted equally with the remainder of the test items which puts some pressure on the student to do a good job in responding. An example of an exam question is: "Analyze this course and give indications as to what you would like to see changed such as time allotments, deletions, additions and presentation techniques. Any statements you make should be backed with specific instances and sound reasoning." This technique is optional to the faculty member, but not to the student. To the student it is a part of his own evaluation in the course.

The majors club has installed three bitch boxes, one each in the men's and women's locker rooms and one in the classroom-office area. The purpose of these boxes is to handle any gripes or complaints about the department. These "gripes" are discussed and acted upon by the previously mentioned Student Advisory Council. The boxes have been an extremely useful channel in handling both small and large problems which could have gone unnoticed for some time. Many problems were so to speak "nipped in the bud".

With some 800 major students and a large quantity of other majors taking block courses in the department, it is extremely difficult to communicate effectively with the students. Two years ago the majors club published the first issue of **Sweat**. **Sweat** is a weekly departmental newspaper run solely by the students. It has been a tremendous help in opening communication channels between administration-faculty and students. Five hundred copies per week are distributed to students, faculty and various administrators throughout the university.

NEW CURRICULAR THRUSTS

The curricular innovations attempted have been subtle, but numerous. Continual reassessment of each curricular change has been maintained. Much attention has been given to internships for faculty and students in order to strive for more contact with the true work world. Faculty internships have been established at both elementary and secondary schools. Several faculty volunteered for an overload during the first year of experimentation of teaching freshman high school students health and physical education one hour per day. At present instructors are given a one-quarter load reduction to accept a faculty internship, and the program has now been extended to the elementary school level. Every instructor who has completed this program has evaluated the internship as a positive and rewarding experience. It is believed that these experiences will enhance their teaching effectiveness in the basic program as well as the relevancy of their efforts in teacher preparation. Hopefully, in the future, high school teachers will be interning at the university in the service activity program. Student internships have been varied—paid and unpaid—good and bad experiences. These internships have been at all levels of education and to different degrees of involvement. The aim has been to provide field experiences at the sophomore/junior level before student teaching.

To insure at least minimal exposure, every major is required to intern under one activity course instructor for one quarter as an "apprentice". Also, every major must complete a problems oriented teaching course taught by one of the public school physical education teachers. Naturally, these courses include a great deal of "participation" with actual elementary or high school classes. In addition, many students have been involved with internships associated with physical education and recreation for a whole or partial school year with many combinations of pay and credit.

Students are engaging in quarter-long internships at a large center for mentally retarded children wherein they will spend mornings working with the center's staff with children, and take field-oriented regular required courses in the afternoons. It is anticipated that these internships will expand to include local ski areas, and other special assignments such as in state correctional institutions. Internships for graduate students are now being arranged at community colleges, four-year institutions, and commercial recreational and ski centers.

Another innovative thrust that takes the student away from the traditional lecture classroom is experimentation with the Outward Bound concept. A six credit hour graduate course entitled a Practicum in Outward Bound Education was processed during the last school year. A special class made up of experienced educators completed an outward course at the North Carolina Outward Bound Center not far from Boone. At this time, the direction of experimentation is to provide two weeks of outward bound experience just prior to student teaching.

We have also partially adopted an internship exchange program similar to an endeavor undertaken by the University of Vermont. The program is designed to send students, on a one for one exchange basis to other universities for a period of one week. Students from predominately white Appalachian State University and students from predominately black North Carolina Agricultural and Technical State University are interning in exchange. The students reside in the abode of, and attend classes of their respective exchange counterparts.

As a result of a substantial grant, a model safety and driver education center has been initiated. The new concept of providing more instructional time for an equal number of instructors through utilizing a multi-phase instructional program will be used. The program will include the local high school students so that persons preparing to teach driver education will spend a considerable amount of time working with live students.

You have had the opportunity to hear and see some of the practical applications which we make available to our students. I would now like to go into a few other areas which we feel are of practical benefit to students. An attempt has been made to set up the scheduling of one hour required physical education activity classes simultaneously with the same activity in a three hour methods course. The instructors of the two classes can get together and plan a program which enables the methods majors to teach the activity people on a one to one basis. This is not as realistic as teaching forty students in the true world of education, but it does give pseudo-actual teaching experience to the students before student teaching. It has benefited the required classes quite a bit in that each student receives individual instruction. The majors teach once or twice a week depending upon schedules and after each teaching practicum they meet in small groups to discuss their teaching experience. In these groups suggestions are made for bettering teaching techniques and bettering communication, as well as suggestions for solving various student-teacher problems. We have had both groups of students evaluate the procedure as well as having them evaluate each other. The whole system has been a meaningful and learnable experience for all involved.

The pictures you have seen on volleyball should not limit the possible application of this technique solely to volleyball. It has been done in tennis, gymnastics, skiing, adaptives and elementary physical education classes. In the elementary physical education course we have imported real elementary age students for the university students to work with. Our methods classes have also had outside responsibilities to hold clinics for the local townspeople's children in activities such as baseball, football and tennis. Atypical children from the local special education classes have also provided a real life situation for our majors to work with.

Still another curriculum change in which the university is experimenting is with the use of the student evaluation profile. This evaluation originated in the Physical Education Department and is now under a two year experimental program in such departments as English, Math, History and Philosophy. The idea behind the profile is to enable the student or anyone interested in the student to have a better, more concise indication of the student as a total person. That is, a better indication than can be given by a simple letter grade. The five major headings of (1) character, (2) social context, (3) learning capability, (4) self expression, and (5) teaching ability are sub-divided into a number of areas each of which is rated on a continuum from high to low. The student is given a completed copy at mid-term and at the quarter's end. A copy goes to the registrar for the student's permanent record. The profile provides an area for comments which are exceedingly important for the student's use as well as for the use of prospective employers. The greatest problem with the use of this profile is that it requires the faculty member to get to know his students and this may not be viewed as a problem by some.

Also on curriculum revision the department has added a new graduate course entitled Creative Health and Physical Education. The purpose of the course is to introduce various aspects of creativity and creative study to the realm of teaching. Such items as bionics, futuristics, psychodramatic approaches, brainstorming, synectics and environment are presented and related to teaching—specifically to health and physical education.

With an almost endless gamut of possible changes in scheduling college physical education classes, it is surprising how few adjustments have been utilized. Service classes have been found to be especially adaptable to manipulation. For example, since poor weather plays havoc with outside classes in the spring, such courses as soccer have been condensed into double periods during the second half of the quarter, and ski classes are doubled to take advantage of the best weather period.

A great need at all levels of education is to break the mass autonomous approach and individualize instruction. While it is true that individualization usually will cost a good deal, Appalachian has been able to afford considerable opportunity for individualization for the undergraduate through three inexpensive plans: (1) Independent Study has been organized so that any undergraduate student has the opportunity to accomplish at least two independent studies. Contrary to popular belief that this would result in an inundation of students, only exceptional majors curious about a problem have enrolled. (2) With the proper approvals, majors may complete regular courses through a university-wide program called "Individualized Study". The student has the permission of the instructor to complete the course without regularly attending class or completing usual assignments. (3) In addition, students may complete any course by special examination. Several key controls have made Credit by Examination successful. Since the instructor receives no "load" credit for examining a student, and since it does not count in the student's load (thus not covered in tuition charges) there is a special fee of $20.00 paid to the university, of which the professor receives half. Also, permission in writing is required by the chairman and dean. An alternate method of individualizing programs, but not individualizing courses, has just been approved called a Bachelor of Arts in General Studies. Students will be required to satisfy general education requirements and a foreign language requirement; however, he may plan any type of a meaningful program jointly with the Associate Dean of Academic Affairs. Since this student will not necessarily complete sufficient hours in any one field to satisfy a major, this is believed to pave the way for exciting and truly multi-disciplined programs.

One of our desires for the future is to make an attempt to obtain top quality students who wish to major in health and physical education by visiting high schools and actually recruiting them. The idea is similar to athletic recruitment, but it is on a much lower key. The hopeful outcome will be to strengthen the caliber of students within the department.

TOTAL IMMERSION

We have talked mainly about faculty and student involvement in change. One important aspect of change should be with the administration of the university. Here you see, in a rather innovative pose for an administrator, our Dean of Educational Innovation and Change. Appalachian is one of the few schools in the country employing such a person. His purpose is to provide the faculty with techniques, methods and avenues of attack concerning innovative ideas. He listens to ideas from within the institution as well as bringing ideas from outside to the faculty. The university also has a senate committee on innovation and change which serves as a clearing house body on new ideas of our faculty and a disseminating body to the faculty for new ideas from outside the school.

The president is also an integral cog in this move to change. He is one of the leaders in the country pressing for change in higher education. He serves President Nixon as member of his committee on innovation and change in education. He is also unique in that he teaches his own classes and is quite willing to make "guest" appearances in various faculty members' classes. He has also made it a point to have an open-door policy for faculty and students to come to talk with him—a needed approach for change to take place.

A last item which has aroused some excitement for the future is an interdisciplinary creative classroom. The room is a complete physical environment controlled entity. That is the size, shape and texture of the room can be altered. The atmosphere in the room can be controlled as to temperature, humidity and/or odor. The walls and floors are textured, the lights are color, tone and brightness controlled. The room is to be treated with the highest quality audio and video equipment along with free flowing, movement oriented features. The whole concept of the design of the 60′ by 30′ room is flexibility. The interdisciplinary creative classroom will be housed in the physical education complex if grants are found to support the project.

As this overview shows, the concept behind change as a challenge is a three-way street among administrators, students and faculty. All must be interested and willing to try new ideas in order to better education—if one or more factions are unwilling to accept the responsibility then change will probably not be instigated.

Let us leave you with some parting thoughts.
CHANGE is awareness of the past
CHANGE is not changing for change sake
CHANGE requires taking a chance
CHANGE is evasive—it must be pursued
CHANGE is vitality—no change is sterility
CHANGE IS A CHALLENGE—IT IS YOUR CHANCE—YOUR CHALLENGE—YOUR TOMORROW.

This is the proverbial end a little upside down and backwards—a little changed—but indeed a challenge.

Progress Report of the College Physical Education Commission, AAHPER

DONALD R. CASADY
University of Iowa

For those of us involved with basic instructional programs at the college level, the work of the College Physical Education Commission promises to have a significant impact upon the content of and approaches utilized in such programs. In my opinion this commission will soon exert a strong influence on all general physical education programs in colleges and universities; I have found my involvement with this commission and the area conferences evolving from it to be especially exciting and rewarding.

While a late-comer to the Commission, I am familiar with most of the projects initiated by it to date. As these are outlined to you I am confident that you will agree that the multi-faceted approach being made by the Commission should expedite improvements of several kinds in basic instructional programs.

My introduction to the College Physical Education Commission originated with a telephone call from Dr. Ross Merrick, Consultant to the Physical Education Division, who asked me if I would accept the Chairmanship of the Planning Committee for the Mid-America Conference to be held in Chicago in one year. I was later told that my recommendation for this position came from Louis E. Alley, then AAHPER President-Elect and my immediate boss. As yet I have not figured out whether this was intended as a reward or punishment. Following the initial meeting of the Planning Committee during which most of the programming for the first area conference was completed, our President, Deane Richardson, asked me to serve on the College Commission as the NCPEAM Representative. Hence, my presence here this afternoon.

The members of the College Physical Education Commission are:

John Friedrich, Chairman, Duke University, Durham, North Carolina
Don Casady, NCPEAM Liaison Representative to the College Commission, University of Iowa, Iowa City, Iowa
Ann Clement, Bowling Green State University, Bowling Green, Ohio
James C. Fox, Lunchburg College, Lunchburg, Virginia
June Galloway, NAPECW Liaison Representative to the College Commission, University of North Carolina at Greensboro
Arden Jervey, Long Beach City College, Long Beach, California
LeRoy Walker, North Carolina Central University, Durham, North Carolina
Ross Merrick, Staff Liaison, AAHPER, Washington, D.C.

The main projects of the Commission include the following:

1) Survey of college people who might be willing to serve as a speaker or clinician on an area conference program.

2) Survey of problems or areas of concern regarding the instructional activity program. See Appendix A for a copy of the results.

3) A directory identifying the people, by states, who are involved in directing service programs has been compiled by the Physical Education Division, AAHPER.

4) An updated Oxendine Report concerning the status of required physical education programs in colleges and universities should soon be completed.

5) The AAHPER College Packet has recently been revised.

6) Results of a survey on innovative programs in college physical education will soon be published.

7) Formulated a statement on the Professional Status of collegiate coaches, which has been endorsed by the Physical Education Division Executive Council.

8) Is readying a publication dealing with proficiency testing for college physical education students.

9) Is developing an article on how selected colleges and universities have successfully defended their physical education requirement for general college students.

10) Has directed that an article be published in JOHPER dealing with innovative evaluative techniques that may be used in evaluating students enrolled in basic instructional programs.

11) Has attained agreement with the Research Council, AAHPER, that a column will regularly appear in JOHPER in which important research findings are interpreted for the ordinary physical education teacher and ways in which these findings may be used are pointed out.

12) Has directed that a JOHPER article be written in which is emphasized the need for physical educators to educate their pupils concerning their need for adequate leisure-time facilities when they attain adulthood.

One of the major areas to which the Commission has devoted itself has been the development of area conferences on general physical education in colleges and universities. The first of these is the Mid-America Conference,* which will be held at the end of this month in Chicago.

Two of the most serious problems encountered with staging this Conference were (1) identifying talent and expertise both within and outside our profession from which to invite program participants for the Chicago Conference, and (2) attempting to put a final program together when the Planning Committee members were widely separated geographically. Minor problems included obtaining sponsorships from all organizations believed to be strongly interested in such conferences. Budgeting for the Conference also presented problems.

The next area conference is scheduled to be held in either Atlanta, Georgia, or Charlotte, North Carolina, in late 1972 or early 1973. Other conferences are planned to be held in other areas of the country at a minimum rate of once a year.

I have purposely kept my presentation to a minimum and have talked only about the high lights of the progress made by the College Physical Education Commission. Undoubtedly, there will be questions or elaborations called for. Are there any questions?

APPENDIX A

Results of Survey
MIDWEST AREA COLLEGE PHYSICAL EDUCATION SURVEY
AAHPER COLLEGE P.E. COMMISSION
N = 232

Area A—Curriculum

Please check in space provided or circle number

1.	49	Loss of physical activity course credit
2.	28	Reduction of physical activity course credit
3.	86	Loss of physical activity course requirement
4.	62	Reduction of physical activity course requirement
5.	131	Physical activity curriculum revision
6.	144	Development of new physical activity offerings.
7.	91	Physical activity course content
8.	103	Development of physical activity elective program
9.	71	Transferability of junior college physical activity course
10.	5	Other

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*A copy of the program is available from the author upon request.

Area B—Administration and Facilities

21.	31	Loss of staff
22.	81	Additional staff
23.	118	Teaching and Coaching
24.	111	Inadequate facilities
25.	70	Sharing of facilities
26.	76	Program scheduling
27.	143	Development of new physical activity offerings
28.	68	Staff professionalism
29.	84	Semester hours vs. clock hours
30.	67	Uniform grading
31.	84	Budgetary matters
32.		Other

Comments:

Trends in the Process for Planning and Financing Intramural-Physical Education Buildings

JAMES A. PETERSON
United States Military Academy

Faced with severe budgetary problems, the President of the University of Michigan, Dr. R. W. Fleming, in a recent statement to the alumni asked:

> "anyone can squeeze the belt, but what happens when you get to the point where you can't get your breath?"

I submit that most of us assembled here today would readily concur that the financial outlook is critical for many of this nation's institutions of higher learning. At a time when these institutions are faced with mounting enrollments and a resonant demand to render numerous services, state officials are insisting that universities and colleges hold the line on their budget requests. In fact, in a number of states, financial assistance to state campuses is being appropriated at a level below what might be considered necessary simply to keep even with inflationary pressures. Since capital outlay monies for new buildings and building renovations are frequently among the first to be curtailed in an austerity program, many of the individuals within higher education who are charged with the responsibility of planning and constructing facilities to meet the building needs of their campuses have far too few funds at their disposal for facility expansion.

In light of the lower priorities which frequently are assigned to student-service-type facilities, the lack of adequate construction funds appears to be especially critical for those seeking to build recreational-type buildings. In my presentation this morning, I would like to share with you a portion of the information which I collected for my dissertation and discuss these findings in terms of the discernible trends in planning and financing recreational type facilities.

My dissertation is a case analysis of the planning process involved in the planning and construction of physical education and/or intramural-recreational facilities which are financed primarily by student fees. I will refer to such recreational type facilities hereafter as intramural-physical education buildings, or more simply, IM-PE Buildings. The planning process was defined as the approach an institution used to reach building program decisions. Five universities, each with a multimillion dollar recreational facility, were selected for investigation: Purdue, Michigan State, The University of Washington, Oklahoma State, and the University of Illinois. I spent a week on each campus interviewing the individuals involved in the planning of their university's IM-PE facility. Several of those structured interviews yielded information on the financial plan for each project. In general, the financial plan outlined: what the sources of funds were; how these sources were tapped; when were they utilized; to what part of the project were they applied; and how the indebtedness was to be liquidated.

PURDUE

In 1957, a recreational facility—the first of its size and scope to be designed for the sole purpose of providing for the recreational needs of students—opened its doors at Purdue University. Considered by many physical educators to be the avant garde of college IM-PE facilities, the Purdue Recreational Gymnasium was funded entirely by student fees. With a gross building area of 148,700 sq. ft., the total project cost, excluding financing and equipment costs, amounted to $2,651,000—which is slightly more than $17.80 per square foot. A $2,500,000, 3-issue mortgage was financed in 1955 at interest rates which varied from 2.5 to 3.0 per cent. The student fee assessment for this project for the first six years was $5.00 per semester; a fee which, because of rising operational expenses, was subsequently raised to $7.00. Graduate students and faculty-staff are permitted to use the facility on a voluntary basis if they pay a comparable fee.

The administrative determination of the financial plan for the Purdue Recreational Gymnasium was relatively informally arranged. Acclaimed to be one of the pioneer institutions in student-fee financing of student service-type buildings, Purdue—at the time—had two bond issues which were approaching retirement. It was a simple administrative procedure to reallocate the debt service capability of the existing student fee structure to the Recreational Gymnasium. Student input in the financial planning for the Co-Rec Gym project was neither sought nor given. In those years, the strident call for student involvement which was to manifest itself in the decade of the 60's did not exist.

The situation in Indiana has changed significantly in recent years. Not long ago, the Indiana State Legislature revised the eligibility restrictions regarding the use of student-fee revenues, so that academic buildings—as well as student service-type facilities—could be financed through a student-fee assessment. The implications for those seeking to finance an IM-PE facility in Indiana is readily apparent: requests for recreational facilities must now compete with a greater number of applicants for the student-fee dollar.

MICHIGAN STATE UNIVERSITY

Construction on the Men's Intramural Building at M.S.U. was begun in June of 1957 and finished 2½ years later. This facility was designed to accommodate 25,000 students and service three programs: men's intramural activities, intercollegiate athletics, and basic instruction in physical education. With a gross building area of 198,000 sq. ft., the total project cost, excluding financing and equipment costs, amounted to $3,607,000—which is slightly more than $18.16 per square foot. A $3,500,000 mortgage in two series was issued in December of 1957 with interest rates of 4.4 and 4.6 per cent. Except for a $345,000 gift, the entire project was financed through student fees. Unlike the usual practice at most schools, Michigan State does not allot a specific student fee assessment for any one project. Instead, a lump sum student fee of $24.00 per semester was assessed. The financial officer then disbursed the collected funds to a variety of student-service projects, depending on the University's current obligations and projected expenditures.

Similar to Purdue in the 1950's, Michigan States' campus development program was directed under the auspices of a semi-formal doctrine of benevolent dictatorship. The decision to build the Men's Intramural Building and to finance it with student-fee funds was made almost solely by Dr. Phillip J. Hannah, the President of Michigan State. The story is related by several individuals that basically the first notice to the M.S.U. student body and faculty-staff of the University's intention to build such a facility was provided by a sign posted in a vacant campus lot which proclaimed the surrounding area to be the site of the proposed Men's Intramural Building.

In recent years, the changing attitudes of both the Michigan State student body and the Michigan State Legislature have had direct consequences on M.S.U.'s administrative approach to financing IM-PE facilities. Three years ago, under the sponsorship of the Director of Athletics at M.S.U., the decision was made to construct an all-events building which would accommodate the intercollegiate basketball program as well as other indoor varsity sports, administrative offices, etc. Greeted initially with overtones of student resentment concerning the fact that such a facility was to be financed by student fees, the basic design of the building was revised to include several recreational activity areas, such as handball courts, which would be available (at certain times) for student use. Despite a significant shortage of adequate indoor space for physical activity, the 40,000 plus student body overwhelmingly rejected any attempt to finance this facility by means of student-fee revenues. Instead, these funds were earmarked for the construction of an auditorium for the performing arts. Current estimates on the East Lansing campus are that the proposed all-events building will not be built in the foreseeable future.

Another interesting occurrence has been the changing attitudes of the Michigan State Legislature towards the use of student-fee revenues. Reflecting the concern of the legislature, the Auditor General of Michigan proposed that it is inappropriate to use student-fee money for long term financing of any building, regardless of its purpose. Student-service-type buildings, he proposes, should be self-liquidating through rentals. It is readily apparent, however, that in addition to being unfeasible, renting out activity areas in an IM-PE facility in order to generate sufficient funds to liquidate the debt is contrary to the intended function of such structures. Similar to many such financial storekeepers, the Auditor General does not provide any constructive alternatives to complement his "conventional wisdom."

UNIVERSITY OF WASHINGTON

The University of Washington's Intramural Activities Building opened in 1966. With only limited service to the basic instruction program in physical education and no accommodations for intercollegiate athletics, this facility was designed to meet the competitive and free-time program requirements of the combined men's and women's intramural activities department. With a gross building area of 153,165 sq. ft., the total project cost, excluding financing and equipment costs, amounted to $4,100,000, which is slightly more than $26.76 per square foot. Initial plans were to finance the entire project with a special "student activities fee" of $4.75 per quarter. While the revenues generated from this assessment were sufficient to retire a $3,500,000 bond issue—the original cost estimate for this project—later it was necessary for the University to reallocate $600,000 worth of funds from other student-fee-financed projects in order to meet additional costs.

In order to take advantage of more sophisticated planning and construction methods, the University of Washington decentralized their approach to planning. For example, compared to Purdue and Michigan State, a much greater opportunity existed for faculty and staff to provide input into the decision-making process for each aspect of planning. In its later stages, the project also included nominal decision-making participation by the students.

Similar to other institutions of higher education, the trend towards extensive student involvement in the decision-making process is apparent on this Seattle campus. An excellent example of this trend is the recent formation of a capital construction board to review all University of Washington campus development decisions. By statute, a board sub-committee, which is composed entirely of students, must approve all student-fee allocations for construction.

Contrary to the negative expectations of some individuals towards any student-administered effort, this sub-committee appears to have adopted a conscientious, service-oriented approach to fulfilling its responsibilities. In fact, during the week that I spent in Seattle, members of this sub-committee were in contact with Len Stevens, the Director of Intramurals for the University of Washington, and were asking him to undertake the responsibility of planning a facility for climbing enthusiasts which they proposed to finance with $250,000 worth of student-fee revenues. In addition, tentative plans have been proposed for the development of another multi-purpose intramural activities building on the other side of campus.

OKLAHOMA STATE UNIVERSITY

Oklahoma State University's Covin Physical Education Center was opened in January of 1969. In contrast to the other projects included in my investigation, this facility was designed extensively to serve the professional and instructional programs of the physical education department. With a gross building area of 155,000 sq. ft., the total project cost, excluding financing and equipment costs, amounted to $3,212,000—which is slightly more than $20.72 per square foot. The project was financed with funds from a number of sources. The State of Oklahoma appropriated $683,000 of gas tax revenues. A $873,000 grant of federal assistance was received under the Title I Section of Public Law 88-204, commonly known as The Higher Education Facilities Act of 1963, "a program which provides grants for the construction of undergraduate academic facilities." Under the Title III Program of that same law, a long term, low interest (3%) loan of $1,155,000 was also approved. The remaining funds came from a $500,000 bond issue which was sold to a local bank at an interest rate slightly in excess of 4.62%. Both the Title III loan and the bond issue are being retired from student-fee income. Before formal plans were undertaken to build this facility, the students voted in the largest student-vote referendum in the school's history to assess themselves $8.00 per semester to finance the project.

UNIVERSITY OF ILLINOIS

The University of Illinois' Intramural-Physical Education Building was opened this past fall. Formal planning efforts for this facility, the largest (and most expensive) facility of its kind in the United States, can be traced all the way back to 1962. One of the more fundamental features of the planning approach for this project was the total administrative commitment to maximize faculty and student involvement in all phases of the planning process. With a gross building area of 262,484 sq. ft., the total project cost, excluding financing and equipment costs, amounted to $10,781,000—which is slightly more than $41.00 per square foot. Revenues came from three sources: a $909,000 state appropriation, a $1,083,000 Title I HEW grant, and $9,100,000 worth of student-fee financed bonds. The undergraduate assessment for this project is a mandatory $18.00 per semester. For a comparable fee, graduate students and faculty-staff can purchase use privileges.

The information collected in my investigation at the University of Illinois yielded one interesting observation relative to financial planning for college recreational-type facilities. Several high-level administrators forecast that, in their opinion, there is an excellent possibility that the IM-PE building might be the last student-fee financed facility ever built on this campus. In this age of student activism, they conclude that the worth of student-fee revenues is lessened considerably by the problems attendant to this source of funds. More simply stated, they feel that the administrative headaches, which accrue when students demand to be the primary participants in the decision-making process for buildings they are financing, are not worth the trouble.

In closing, I would like to speculate on the implications of this study's findings for apparent trends in the financing of IM-PE type facilities. The audience should keep in mind, however, that any such generalizations should be considered in the light that they are based on only five case studies of IM-PE Buildings and on my own personal opinions.

With no immediate relief in sight for the financial difficulties facing our colleges and universities, the State of Indiana's recent decision to finance "academic" buildings, as well as student-service-type facilities, with student fee revenues would appear to loom as an attractive funding approach for other states. If, indeed, this procedure is adopted in other states, physical educators and recreators face an uphill fight in their battle to obtain adequate financing for IM-PE type facilities.

I draw two conclusions from the overwhelming student rejection of the all-events building on the Michigan State campus. First, despite a few well publicized exceptions, college students are becoming increasingly reluctant to provide direct financial assistance to intercollegiate athletics. Perhaps this is due to a lessening of interest in traditional college activities of all forms. However, at the same time that the old-do-or-die-for-the-gipper-spirit appears to be waning, intramural activities programs are growing at an unprecedented pace. I submit that in the future it will be much more difficult to use student fee revenues to build sports palaces for varsity programs. Frankly, I do not feel that the sop of including incidental recreational areas, such as those in the proposed all-events building, will induce students to finance such projects.

A second observation can be drawn from the recent events in East Lansing, as well as those at other universities: in highly urgent and vocal outbursts, students are demanding that they be given an active role in the policy decisions affecting the allocation of student-fee revenues. If for no other than feasibility considerations, we cannot continue to plan buildings, create schools, and attend to all the other "traditional" college matters without consulting with and involving those young men and women who are most affected by what we do and how we do it.

Who in the audience can forget the situation not many years ago at Boston University when the school attempted to name a new school of nursing after a donor who also happened to be a rather notorious slum landlord? Or how many recall that the spark for the Columbia confrontation was the location and construction of a gymnasium, or that the most polarizing action to have yet occurred at Berkeley centered around land development, or that one of the major factors underlying the troublesome situation at Santa Barbara centered around the uncontrolled development of an apartment community adjoining the campus—a community which was allowed to develop without consideration for its symbiotic relationship with the University.

No one can categorically state, in good faith, that student participation in the decision-making processes is the medicine for all the discontent that has been manifested on our campuses. On the other hand, by opening lines of communication and breaking down some of the traditional barriers of frustration, student involvement can produce meaningful results for both the administrator and the educator. On the University of Illinois campus, for example, I believe that the constructive effort to encourage student input in the planning of its IM-PE facility has been a major factor in minimizing student discontent towards the skyrocketing $11.1 million cost of the project.

One must also reflect on the growing administrative concern that an untenable situation faces the administrator when students become actively involved in the policy decisions for student-fee financed facilities. While in some instances, there is partial justification for such concern, I believe that within certain limits, administrators and educators alike have a pragmatic responsibility to fund these facilities from whatever means available. If the use of student fee revenues creates problems for the administrator, rather than avoid the problem, efforts should be undertaken to mitigate the difficulties.

In view of the existing situation, what does the future hold for funding possibilities for IM-PE type facilities? Will it see a drastic revision in the reluctance of the state and federal government to provide funds for such "non-academic" facilities? Will it result in the passage of a federal program of matching grants for IM-PE type facilities similar to the Hill-Burton Act which provides matching revenues for the construction of hospitals? Unfortunately, I have no crystal ball which mirrors the future, no mystic powers to precisely predict the course of education. I do, however, firmly believe that the universities and colleges of this nation have both a challenge and a moral obligation to provide adequate leisure opportunities in physical activities for **all** their students, and not just the chosen few. I submit that a critical issue in this challenge is the willingness of the powers-that-be to accept an administrative commitment to continue the development of IM-PE type facilities.

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Taxonomy of Educational Objectives—What Now?

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At the NCPEAM meeting in 1970, Jim Boscoe, the Research Section Chairman, started a precedent by diverging to some extent from the practice of presenting research papers. I chose to follow this concept, but instead of inviting presentations in the research methods area as Jim did last year, on this occasion of NCPEAM's 75th anniversary, I invited scholars to participate in a Research Synthesis Series at this convention as the research program.

Since we are frequently criticized for being "behind" in physical education, I have chosen to focus on the constructs included in the **Taxonomy of Educational Objectives, the Cognitive, Affective and Psycho-Motor Domains** which were conceived only fifteen years ago and describe what has happened since. As many of you know, a committee at the University of Chicago, later expanded into a national committee, prepared a framework which was later published by the David McKay Company in 1956 after being edited by Benjamin Bloom, et. al., and titled **Taxonomy of Educational Objectives: The Cognitive Domain**. Later, Krathwohl and others developed a taxonomy in the affective domain which was released by McKay in 1964. Several people have developed structures in the psycho-motor domain including people in our own profession, people in the psychology area, and others.

I would like to help put these materials in focus by describing the nature of education with some terms that I have taken essentially from Eleanor Metheny and from Jan Felshin*, one of my own faculty members, relative to what has happened leading up to 1972.

Some time ago, in the 1800's education was defined as a preparation for life. It was something to be done **to** individuals or to the child; something to be done to someone. Phrases in physical education were "perspiration and peristalsis," "physical training," "middle third of the body," "the school room stoop."

Later, an emphasis in education was on growth and development and something to be done **by** the whole child. Phrases in physical education were "ontogeny recapitulates phylogeny," "clean and manly athletics," "education through the physical," "physically educated," "better teaching through testing," "individual differences" (recognizing individual differences).

In another era, education was described as a social experience, something to be done **with** others in a group. Characteristic phrases were "education for citizenship in a democracy," "life adjustment," "a sport for every player and a player for every sport."

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*A contemporary adaption of Eleanor Metheny's "Catch-phrase Outline of Physical Education, 1855-1955" appears in More Than Movement: An Introduction to Physical Education by Jan Felshin, Philadelphia: Lea & Febiger, (in press).

Later, perhaps today, perhaps fifteen years ago—educational emphases became those of personal meaning in relation to knowledge, the taxonomy of educational objectives, individualizing instruction, education for meaning, relevance, excellence, establishing priorities, and accountability (on what, how, where, *what kinds of things?*). Key words in physical education are "bodies of knowledge," "academic discipline," "learning by insight and mastery," and "sport as experience."

Behavorial competencies are currently of interest. But what kind of competencies? Purchase contracts are fashionable; what would you like to purchase? Should we develop performance contracts which are really individualized to learning both in content and in rate? We have been able to individualize rate to some extent but what about content? Perhaps a most important concept currently emphasized in one word is "humanize" in relation to education, and I offer this possibility for consideration for the future.

One of the types of analysis of an education in physical education could be in the cognitive, affective, and psycho-motor domains which implies other than "just" motor objectives are important. Are they?

The Cognitive Domain and the Teaching of Physical Education

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When professional educators speak of the cognitive domain their referrent generally becomes the paradigm developed by Benjamin Bloom, and his associates, which appeared in 1956 under the title of **Taxonomy of Educational Objectives: The Classification of Educational Goals. Handbook I, Cognitive Domain.**[1] It is assumed that this same referrent applies to physical educators who function within the institution of the school. This is only an assumption at this date, however, as there is an apparent dearth of research and resource literature pertaining to the uses of the cognitive domain in professional physical education. Among the many reasons contributing to the inattention to the cognitive domain on the part of the physical educator, two seem to be paramount. First, there is every reason to suspect that the practicing physical educator has a difficult time viewing cognition as an integral portion of the physical education process. Second, the physical educator suffers from a lack of communication regarding the significance of Bloom's work and its application to the teaching-learning situation.

STRUCTURE OF THE COGNITIVE DOMAIN

The term cognitive is interpreted by Bloom, **et. al.**, as "activities such as remembering and recalling knowledge, thinking, problem solving, creating."[2] The cognitive domain is an attempt to classify a portion of the learning activities which are manifest in the school. According to the above authors, this domain, in addition to the affective and psychomotor domains, constitute the spectrum of possible learning relegated to the school.

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[1] B. S. Bloom, **et. al., Taxonomy of Educational Objectives, Handbook I: Cognitive Domain** (New York: David McKay Co., 1956).

[2] **Ibid.**, p. 2.

The cognitive domain is classified into the following categories:

- 1.00 Knowledge
  - 1.10 Knowledge of specifics
  - 1.11 Knowledge of terminology
  - 1.12 Knowledge of specific facts
- *1.20 Knowledge of ways and means of dealing with specifics*
  - 1.21 Knowledge of conventions
  - 1.22 Knowledge of trends and sequences
  - 1.23 Knowledge of classifications and categories
  - 1.24 Knowledge of criteria
  - 1.25 Knowledge of methodology
- 1.30 Knowledge of the universals and abstractions in a field
  - 1.31 Knowledge of principles and generalizations
  - 1.32 Knowledge of theories and structures
- 2.00 Comprehension
  - 2.10 Translation
  - 2.20 Interpretation
  - 2.30 Extrapolation
- 3.00 Application
- 4.00 Analysis
  - 4.10 Analysis of elements
  - 4.20 Analysis of relationships
  - 4.30 Analysis of organizational principles
- 5.00 Synthesis
  - 5.10 Production of a unique communication
  - 5.20 Production of a plan, or proposed set of operations
  - 5.30 Derivation of a set of abstract relations
- 6.00 Evaluation
  - 6.10 Judgments in terms of internal evidence
  - 6.20 Judgments in terms of external criteria[3]

It is readily apparent that the structure of the cognitive domain contains not only possible types of cognitive learnings, but these learnings are placed in hierarchial order. In other words, the learnings have been taxonomically ordered—the cognitive categories have been placed on a continuum from simple to complex forms of intellectual abilities. In practical use it is logically and psychologically sound to expect that complex cognitive analysis or synthesis is directly related to mastery of the more simple cognitive operations such as recall of knowledge and comprehension of this knowledge. Knowledge and comprehension, therefore, are advance organizers for the higher order cognitive processes. A broad interpretation of the cognitive taxonomy may repose in the fact that the stages of the taxonomy encompass identification of knowledgeable items to solving problems using these items. The stages reflect a feasible answer to the question "once an individual possesses certain bits of information, what can he do with them?"

The development of the hierarchial sequence in the cognitive taxonomy is not unprecedented in the annals of educational psychology. The taxonomical model is not appreciably different from Piaget's[4] developmental stages, Bruner's[5] imagery-related stages of cognitive experience, or Guilford's[6] analysis of contingencies surrounding convergent and divergent thinking.

FUNCTION OF THE COGNITIVE DOMAIN

Although the structure of the cognitive domain is not a radical departure from accepted conclusions about cognitive development and cognitive learning sequence, the intentional function of Bloom's work is different in that it is an educational extension of previous deliberations about cognitive processes. It is an educational extension in that the cognitive domain is intended as a device which provides criteria against which a teacher will be able to classify cognitive **behavior** in the classroom or gymnasium. The focus of the domain is not upon the learning construct but upon the behavioral response which results from the construct. For this reason it is gross error to interpret the cognitive domain as a learning or instructional theory.

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[3] **Ibix.**, pp. 201-207.

[4] J. H. Flavell, **The Developmental Psychology of Jean Piaget** (New York: Van Nostrand, 1963).

[5] J. S. Bruner, "The Course of Cognitive Growth," **American Psychologist**, 19, (1964), 1-15.

[6] J. P. Guilford, "Three Faces of Intellect," **American Psychologist**, 14, (1959), 469-479.

The domain is related to the teaching-learning situation primarily in an evaluative sense. It may be averred that the cognitive taxonomy is an antecedent to a measuring device. Stated in this manner it is possible to perceive the functional use of the domain in formal education. Generally, one may view the entire teaching phase of the school from three vantage points—structuring objectives, employing instructional processes, and evaluating the product. Through the instructional processes the student may be subjected to certain cognitive content material. The only manner by which a teacher may ascertain whether the student has command of this material is by observation of the students when presented with response stimuli. It is this terminal behavior that inspired the development of the taxonomy.

The kinds of behavior with which the teacher is concerned may be termed intentional. This does not imply actual behavior. There is a difference. The student may learn little or nothing as a result of participation in an instructional unit but may and will behave upon the completion of the unit. This random behavior may be termed "actual" and may have no relationship with the intent of the learning environment. Intentional cognitive behavior, on the other hand, is behavior which reflects the kinds of cognitive responses established and planned by the teacher prior to subjecting the student to the instructional program.

If the cognitive taxonomy is to be used as a device for determining intellectual abilities, and these abilities are ascertained by observing intended overt behavior, the taxonomy is directly related to instructional objectives. In fact, instructional objectives **are** intended behaviors. Therefore, the successful employment of the cognitive taxonomy depends upon the ability which the teacher exhibits in writing program objectives.

Preparing instructional objectives. The writing of cognitive behavioral objectives serves at least two purposes. First, it delimits specific intended behavior, and second, it identifies the cognitive level at which the student is operating. In order that these objectives become useful evaluative tools, they must be expressed carefully by the teacher. For example, an instructional objective directed at "fostering an understanding of basketball strategy" is extremely impractical. This objective does not relay to the student or the teacher much information about what is expected from the program. What constitutes "understanding" and how well the student must perform in order that the teacher may judge that understanding has been accomplished is not communicated through the objective cited above. In order that objectives become a practical teaching-learning tool, the physical educator must construct them in as clear and concise manner as is possible. In fact, objectives should be stated in such a way that evaluation criteria become a part of the statement. To accomplish this it is advisable that the objective contain statements about the specific intended behavior desired as a result of one's participation in the program.

Mager, in a text designed to prepare teachers to write behavioral objectives, describes three considerations to follow when writing these statements. First, identify the terminal behavior by name; one can specify the kind of behavior that will be accepted as evidence that the learner has achieved the objective. Second, try to define the desired behavior further by describing the important conditions under which the behavior will be expected to occur. Third, specify the criteria of acceptable performance by describing how well the learner must perform to be considered acceptable.[7]

Adherence to Mager's guidelines will assure the teacher that the intended student behaviors are unmistakably identified. By converting stated objectives into behavioral terminology one may see that the objectives also become evaluative criteria. To define in writing the meaning of the term "screen" as used in the sport of basketball exposes an objective. It further exposes a means of determining if the student indeed has this knowledge. It is possible also to judge at which level of cognition the student is performing by the structure of the objective. It is obvious that the example objective above is aimed at the first, or knowledge level, of the cognitive domain. If the teacher desires that the students attain a higher cognitive level, the comprehension stage, for example, the objective and intended behavior may be stated as "to be able to diagram on paper an example of an offensive basketball maneuver termed a screen involving at least four participants." This latter operational objective couches the request for behavior at the comprehension level in terms of cognitive translation, or level 2.10 in the taxonomy.

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[7] R. F. Mager, **Preparing Instructional Objectives** (Palo Alto: Fearon, 1962), p. 12.

Table of specification. Again, the use of the cognitive domain as evaluative behavior categories is directly related to intentional instructional objectives. This behavior, however, is also directly related to the instructional process through the imposition of the content matter within the instructional environment. The physical educator, for example, is interested in both the cognitive subject matter inherent in his teaching-learning unit and the observable cognitive response behavior which results from the student's subjection to that subject-matter.

It is possible to schematically coordinate instructional content and intended behavior through the use of a table of specifications. This table then becomes a two-dimensional matrix which identifies subject-matter content in conjunction with the behavioral expectations defined in the cognitive domain. By accomplishing this process the relative importance of each subject-matter element is specified. An example of a table of specifications devoted to cognitive elements contained in a basketball unit may appear as:

Behaviors

Content	Knowledge	Comprehension	Application	Analysis	Synthesis
History of Basketball					
Basketball Terminology					
Basketball Rules					
Mechanical Analysis of Basketball Skills					
Sociological Interpretation of Basketball					
Physiological Considerations					
Strategy					

It is apparent from the above sample chart that the vertical axis defines the content of the instructional unit. The horizontal axis concerns the level of cognitive behavior expected of the student. Not all content elements (e.g., history of basketball) will demand higher levels of cognitive behavior. For example, the unit planner, or teacher, may require only that the student succeed at the knowledge level when he encounters historical content. He then merely writes his intentional behavioral objectives to encompass a demonstration of knowledge.

The table of specifications is useful also for test construction purposes. Into each cell a percentage figure may be placed which would indicate the relative importance and time devoted to that element of content. If historical knowledge is accorded four percent of the total time in the unit, a student's grasp of this content would constitute four percent of the final evaluative grade.

APPLICABILITY FOR COLLEGE PHYSICAL EDUCATION

An outstanding feature of the cognitive taxonomy is that it is adaptable for use at any level of the educational system. How extensively it is used depends largely upon the nature of the subject-matter. Some academic disciplines such as mathematics and physics will become more involved in the taxonomy than the more practical and applied disciplines. This conclusion, however, does not preclude an extremely significant employment of the taxonomy in any subject field found in the school.

As an example, the use of the taxonomy for college level physical education programs may serve a fruitful purpose. A recurring question facing those who administer the physical education courses in general education (service courses) is "Why are these courses different from courses in the secondary school?" The response to this query may be that college physical education offerings treat the cognitive content at a higher taxonomical level. There is every reason to believe that at this educational stage the students should be able to perform within the analysis and synthesis categories. This treatment of cognitive content at the college level is reinforced by Bloom: "Although information or knowledge is recognized as an important outcome of education, very few teachers would be satisfied to regard this as the primary or the sole outcome of instruction. What is needed is some evidence that the students can do something with their knowledge, that is, that they can apply the information to new situations and problems."[8] In the field of physical education, applying information to new situations may be demonstrated at the college level of instruction.

If college physical educators believe their responsibilities repose in providing opportunities for students to achieve higher levels of thinking about physical education they must become cognizant that success in application, analysis, and synthesis is contingent upon the student's grasp of lower order knowledge which is brought to bear on these higher order processes. It is desirable, then, that the college physical educator assures himself that the student has a fundamental comprehension of the knowledge that will be used to solve the problems which he encounters on the higher levels of thinking. This admonition is not new or appreciably different from commonly accepted instructional or evaluative methodology. What may be slightly innovative is that the physical educator may use the cognitive taxonomy and the table of specifications to make certain that the college student has mastered the concepts which are preliminary to problem solving.

Bloom Hastings, and Madaus[9] have attacked this approach and have made interesting distinctions between formative and summative evaluation. Formative evaluation is regarded by these authors as a systematic assessment of the teaching-learning process that takes place during the time the students are learning to accomplish the intended objectives. Summative evaluation is "the type of evaluation used at the end of a term, course, or program for purposes of grading, certification, evaluation of progress, or research on the effectiveness of a curriculum, course of study, or educational plan."[10] The distinction between these two evaluation thrusts may be observed in the table of specification. "Each target cell of the specifications matrix is a summative objective, and the students' attainment of the objectives is evaluated at the end of the course or sequence."[11] By utilizing this technique the college instructor may focus upon the taxonomical level reached by the student and may evaluate accordingly.

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[8] Bloom, **op. cit.**, p. 38.

[9] B. S. Bloom, **et. al. Handbook on Formative and Summative Evaluation of Student Learning** (New York: McGraw-Hill, 1971).

[10] **Ibid.**, p. 117.

SYSTEMATIC OBSERVATION OF COGNITIVE BEHAVIOR

As more teachers are becoming aware of the need for students' attaining higher levels of cognitive behavior the demand for ways in which this behavior can be observed is increasing correspondingly. If the teacher intends that the students are achieving at these higher cognitive levels there is a necessity that he monitor constantly the cognitive behavior of these students. Constructing paper-and-pencil tests is one way of accomplishing this observation but has severe limitations as a result of the time imposition. To solve this problem educators have developed and refined classroom observational devices which fall under the rubric of systematic observation. These devices represent useful means of identifying and classifying teacher and student cognitive behavior as it occurs in the instructional-learning situation. They also provide the trained teacher with a reliable method of determining whether students are attaining the objectives of the instructional course or unit.

A large number of these systematic observation check-lists have been published recently. An interesting description of twenty-six systems appear in a document entitled **Mirrors for Behavior,** edited by Simon and Boyer.[12] Among many, an observational system called the **Florida Taxonomy of Cognitive Behavior**[13], seems to have particular import because the behavior categories parallel the levels of cognition suggested by Bloom, **et. al.,**[14] with an exception that the Florida Taxonomy contains seven levels rather than six because of the substitution of Translation and interpretation for comprehension as major categories.

The use of the Florida Taxonomy entails the teacher's observing classroom or gymnasium discussion during predetermined six-minute periods and checking at what level of cognitive behavior the isolated verbal responses have been attained. The authors state that "By using the Florida Taxonomy in systematic observation, one can discover if the acquisition of information is the central focus of the students he is observing or if they are engaged in cognitive behaviors which go beyond the memorization and recall of facts and information."[15] The Florida Taxonomy also was devised as a method whereby a trained observer also could monitor the teacher's cognitive behavior, thus providing data concerning the teacher's level of cognitive stimulation compared with the students' cognitive responses.

FUTURE OF THE COGNITIVE TAXONOMY FOR PHYSICAL EDUCATION

Employed as an evaluative instrument that reflects the degree to which students reach higher levels of cognitive thinking, the Taxonomy could become a very significant tool for physical educators. As physical educators we may entertain many questions and hypothesis, the solution to which may be weighed through the data collected using the cognitive Taxonomy. Among these questions the following may be relevant:

1) At what level of cognitive thinking are college general program students? Is this level different from that which is expected?

2) Does performance of physical education activities require higher levels of relational cognitive thinking than we are led to suspect? Are many students unsuccessful in physical education activities as a result of not being able to use the cognitive information indigenous to these activities at a higher cognitive level?

3) Are professional physical education major students operating at a desired cognitive level? What should major students be able to do with the cognitive information they have learned?

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[11] **Ibid.**, p. 29

[12] A. Simon and E. G. Boyer (eds.), **Mirrors for Behavior, An Anthology of Classroom Observation Instruments** (Philadelphia: Research for Better Schools, Inc., 1967).

[13] B. Brown, R. Ober, and R. Soar, **The Florida Taxonomy of Cognitive Behavior** (Mimeographed materials, copyright, 1968).

[14] B. Bloom, **Taxonomy of Educational Objectives**.

[15] B. Brown, **et. al., op. cit.**, p. 2

4) Is it possible to devise a systematic observation program which would indicate the cognition level of students as they perform activities?

5) What is the cognitive information regarding the field of physical education and at what stage of educational development is the student expected to learn this information?

6) Is it possible to construct instructional objectives, a physical education learning taxonomy, and a systematic observation procedure that would determine the students' interactive assimilation of the three learning domains in combination?

Physical Education Effects In the Affective Domain

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It might be best if we first attempt to determine what is meant by the affective domain. For the purposes of this presentation, I will use the basic connotation used by Bloom **et. al.**,[1] and Krathwohl **et. al.**[2] The affective domain we are speaking about is a domain or a group of "objectives which emphasize a feeling tone, an emotion, or a degree of acceptance or rejection. Affective objectives vary from simple attention to selected phenomena to complex but internally consistent qualities of character and conscience."[3] We generally think of objectives in this domain as dealing with emotions or more specifically with attitudes, interests, appreciation, values, and adjustments.

It is easy to find a large number of such objectives expressed in educational literature. As a typical example, three of the seven cardinal objectives of secondary education established by the NEA in 1918 could be classified as being in this domain. Those objectives are worthy home membership, citizenship, and ethical character. Most other lists of educational objectives contain similar affective domain objectives. It used to be quite common in stating course objectives in general education courses at the college level to give a great deal of emphasis to affective objectives. There has been a gradual disappearance of these affective objectives over time. Some of the reasons for that may become apparent later in this presentation.

The one field which has **claimed** to have the capacity for contributing the most to the affective domain is physical education. The four traditional objectives of physical education are listed by Bucher[4] as: (1) Organic Development, (2) Neuromuscular Development, (3) Interpretive Cortical Development, and (4) Emotional Impulsive Development. These seem to be representative of the field. I have never come across a set of general objectives of physical education that did not include at least one objective which clearly fits into the affective domain. We have professed that our programs contribute greatly to social-psychological development, personality development, emotional development, character development, citizenship development, "sportsmanship" development, appreciation of the good life, positive attitude toward physical activity, development of the concept of fair play, development of interests in sports—to mention only a few. In contrast to most other fields in education we have not yet given up the "belief" or "hope" that physical education can make a significant contribution in this area of the affective domain. However, there are those who are now proposing that we forget about this domain and concentrate on doing a better job in a domain where we know that contributions are made—namely, the psychomotor domain.

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[1] Benjamin S. Bloom, Max D. Englehart, Edward J. Furst, Walker H. Hill, and David R. Krathwohl, **Taxonomy of Educational Objectives, the Classification of Educational Goals Handbook 1: Cognitive Domain**, David McKay Co., Inc., 1956.

[2] David R. Krathwohl, Benjamin S. Bloom, and Bertram B. Masia, **Taxonomy of Educational Objectives, The Classification of Educational Goals, Handbook II: Affective Domain**, David McKay Co., Inc., 1964.

[3] **Ibid.**, p. 7.

[4] Charles A. Bucher, **Foundations of Physical Education**, C. V. Mosby Co., 1968.

Are the possibilities for physical education in this affective domain realities or are we living a myth spurred on only by hopes and beliefs? Entire subdisciplines such as sport sociology and sport psychology have arisen as a result of attempting to answer this question. Rather than present a lengthy review of research completed in this area, it might suffice to point out that the general type of research in this area has been to administer personality, attitude, opinion, interest, or sociometric inventories to individuals and relate the results of these to physical prowess. If positive relationships exist, it is then usually implied that physical education is in fact contributing to this affective domain. It would not be an exaggeration to say that the research results in this area have been conflicting, confusing, and inconclusive. Any review of literature will likely point out three possibilities. First, if physical education is supposed to be producing the results hypothesized, it is many times failing. Secondly, the results hypothesized in most cases represent claims of physical education "values" that were assumed and not planned. Finally, we are generally testing programs for results they were not designed to produce.

Without going into some of the more obvious reasons such as different instrumentations, populations, statistical procedures, etc., I would like to allude to some rather basic or fundamental problems or faults in this area and at the same time offer some possibilities for partially solving them.

Relative to the contributions we have to make along these lines, it sometimes seems that in physical education we are very much like the headless horseman—namely, we have no idea of where we are going, but at least we are going there. When we state such objectives as emotional development, development of appreciation of physical education, development of character, development of personality, etc., we are probably only communicating to ourselves, if that! This, of course, is not just our dilemma but also a plaguing "thorn in the side" for educators, psychologists, sociologists, and many others. That is why I applaud the taxonomy of objectives attempts by Bloom **et. al.**,[5] and Krathwohl **et. al.**[6] While their attempt at providing a communication basis in this area is far from flawless, at least it is an **attempt** and certainly is better than the usual practice of providing such vague terms as above.

If their taxonomy of objectives in this area is successful in providing a way of stating objectives such that most will understand what is meant and in providing an ordering of objectives the planning of curricula to meet these objectives, the evaluation of these objectives and research in the affective domain would be greatly enhanced. Meaningful comparison of programs and research results might then be made. That is why I shall attempt to present a brief overview of their work in the affective domain.

After assuming that the affective domain includes those objectives dealing with interests, attitudes, values, appreciation and adjustment, the key word in the development of the taxonomy of the affective domain is internalization. "The internalization process represents a continuous modification of behavior from the individual's being aware of a phenomenon to a persuasive outlook on life that influences all his actions."[7] This, of course, allows for development in this domain and consequently an ordering.

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[5] Bloom **et. al.**, **op. cit.**

[6] Krathwohl **et. al.**, **op. cit.**

[7] **Ibid.**, p. 33

It will enhance a brief description of the Taxonomy if we look at the Table depicting the outline of **Taxonomy**.

TABLE I*

1.0 Receiving (attending)
  1.1 Awareness
  1.2 Willingness to receive
  1.3 Controlled or selected attention
2.0 Responding
  2.1 Acquiescence in responding
  2.2 Willingness to respond
  2.3 Satisfaction in response
3.0 Valuing
  3.1 Acceptance of a value
  3.2 Preference for a value
  3.3 Commitment (conviction)
4.0 Organization
  4.1 Conceptualization of a value
  4.2 Organization of a value system
5.0 Characterization by a value or value complex
  5.1 Generalized set
  5.2 Characterization

In this hierarchy, we begin at receiving (1.0) where an individual at the lowest level is only aware of the stimuli which initiate affective behavior. As we move along in the categorization, we see that the person gradually allows this stimuli or affective behavior to become a part of his life until we reach the ultimate level of characterization (5.2), where the individual includes the behavior in his philosophy of life. From this, it seems that the term internalization was a good choice to describe the process of moving through the taxonomy.

To illustrate this further let us look at an example which might be related to physical education. We often times talk about developing the concept of "fair play" in physical education, whatever that is. Let's see how that might be rather crudely broken down in the taxonomy.

1.0 RECEIVING
  1.1 **Awareness**
  Develops an awareness that there is such a thing as fair play in sport.
  1.2 **Willingness to Receive**
  Appreciates observing activities where honesty is demonstrated by others.
  1.3 **Controlled or Selected Attention**
  He begins looking for situations where respect for others or fair play occur.
2.0 RESPONDING
  2.1 **Acquiescence in Responding**
  At the request or threat of his teacher, he observes all the rules in the game.
  2.2 **Willingness to Respond**
  Sometimes he calls rule violations on himself but mainly to please the teacher.
  2.3 **Satisfaction in Response**
  Becomes emotionally involved and begins to get some personal pleasure out of being honest.
3.0 VALUING
  3.1 **Acceptance of a Value**
  Accepts that honesty or "fair play" in sports is a good thing.
  3.2 **Preference for a Value**
  Calls rule violations on himself without any prompting because he strongly feels this is the right thing to do.
  3.3 **Commitment (conviction)**
  He now clearly holds this value of "fair play". He not only demonstrates this by his own actions, but tries to convince others this is the way to enjoy the game.
4.0 ORGANIZATION
  4.1 **Conceptualization of a Value**
  Sees how the concept of "fair play" and honesty can be used in other aspects of life.

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*Taken from page 33, Krathwohl, et. al.

4.2 **Organization of a Value System**
Places the sense of "fairness" into his total life's value system.

5.0 CHARACTERIZATION BY A VALUE OR VALUE COMPLEX

5.1 **Generalized Set**
Becomes consistent in all aspects of his life in the display of "honesty".

5.2 **Characterization**
Develops a consistent philosophy of life.

I believe we can now see what is meant by internalization. The example I have used may not be exactly correct, but it seems that the developmental pattern set up is a reasonable one.

Of course, once clear communication is accomplished, there will need to be evaluative devices developed for measuring these objectives. This will not be an easy task, but certainly it will be aided by at least knowing what it is we are supposed to measure and evaluate.

The next major obstacle is again one of communication, but this time in our own field. When we speak of objectives such as developing coordination, balance, skill, physical fitness, etc., we are not being definitive. Thus, it appears that we also need to develop a communication system for this domain—referred to as the psychomotor domain by Bloom and Krathwohl—before we are able to meaningfully compare programs and/or research findings.

I have left until last what I feel is the real essence of our problem in this area—both in instruction and research—that being the apparent fact that to date we have never really **planned** our physical education programs to accomplish our stated objectives in the affective domain. Of course, the problems alluded to above have a direct bearing on this since it is rather difficult to plan for the development of something if we do not really know what that something is.

We usually have left development in this affective area purely to chance. We often see the statement that these types of objectives are "**inherent**" in the activity. We have assumed that if a student attained the "physical" objectives of our programs he would, as a consequence, accomplish the goals set up in the affective objectives. The research in this area, as stated earlier, certainly cannot be construed to support such a thesis. And, if we think seriously about it, expecting tremendous outcomes from something which has been given little if any input, defies logical thinking. We've been squeezing grapefruits and expecting to get orange juice. Is it any wonder that our research does not provide any conclusive results in this area, when we are testing or trying to measure a program for results it was not designed to produce?

As a matter of fact, it seems that many times our programs are having just the opposite effect. For example, an objective in this area might be the development of a **desire** to participate in vigorous physical exercise. In children, this desire is practically always present. After going through our physical education programs of 4, 8, or 12 years, it appears that such a desire is lost by the majority of our clients. A possible explanation for this is that we make no plans for this objective. Therefore, why should we expect it to be accomplished. Many times in our research projects we have gone so far as to purposely keep from doing anything intentional in the affective domain, feeling that it may bias our results.

In summary, physical educators, what can or possibly should we do about our ambiguity in the affective domain? First, a decision has to be made as to whether we desire to continue efforts in this area of development or simply "give up the ship" as other disciplines have and devote all our energies to the physical side of physical education. Assuming and hoping that our decision will be a continued commitment to this area, I suggest we develop or adopt a much clearer method of identifying objectives in both the affective and psychomotor domains. I have briefly presented a Taxonomy of the Affective Domain by Krathwohl as a possibility. It can be criticized, but I know of nothing any better at the present time. If we adopt such a taxonomy or develop a better system, we may need to rewrite many of our objectives, discard some, and create others. While accomplishing this task, we must also create means for measuring the accomplishment of these objectives and thereby provide tools for evaluation. How well we identify or define our objectives will determine how well we are able to measure progress in them. Once these monumental tasks are accomplished, we will finally be able to make an attempt at planning in our curriculum ways in which we might meet these objectives. This, of course, is our ultimate task and by far the most important one.

Assuming that all the tasks above are feasible and will be accomplished, we can now apply our measuring instruments and evaluate our programs in terms of **their stated objectives and intents**, something which we definitely have failed to do in the past.

As various methods of meeting our newly developed or defined objectives are hypothesized, we will then be able to conduct some meaningful research. Hopefully, various researches will have bases for sensible comparisons.

Finally I have presented some ideas today. I have criticized, not as an outsider, but as one who must also plead guilty to the charges made. The suggested solutions I have offered to some of our problems are not easy ones to manage and they will not and cannot happen overnight. They may not even be workable, but I feel they are at least possibilities worth every effort we can give to them.

If I haven't provided any feasible possibilities, then I at least hope that I have offered stimulation for some of you to do just that. How about it?

The New World of Exercise Physiology

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A presentation entitled, "The new world of——" could imply the existence of a presumptious attitude on the part of the speaker. It is not the intention nor is it within the capability of the speaker to present the full spectrum of new approaches to the world of exercise physiology. This discussion will emphasize the interests of a selected new wave of exercise physiologists within the field of physical education. These people teach, practice and research a type of exercise physiology that wasn't available, beyond a few individuals, as short of time as 5 years ago. This type of exercise physiology still doesn't exist in present day exercise physiology textbooks.

It appears that as man's search for knowledge has progressed throughout history, he continuously has applied greater and greater sophistication to his measuring techniques. For example, we have seen researchers in the biological sciences employ anthropometric, physiological, histochemical biochemical, electron microscopy, and biophysical techniques in an attempt to delve into the unknown aspects of life and, more specifically of interest to this group, about energy production and transmittance of biological information. The result of this search has been a progressive changing of research tools. Only rarely have there been sharp demarcations that can be identified from the general developing trend. These rare instances being the result of technological breakthroughs, for example the development of the electron microscope and laser beam.

Hopefully, every ten years there should be "new worlds" of research in any dynamic specific field. The solving of new and/or unresolved problems with old techniques has been long rejected as a suitable approach to problem solving. Furthermore, from a practical point of view it is necessary to remain competitive in the quest for dollars for the support of research. Therefore, in the study of physical activity, the 1970's seem to be the time of practical value to obtain an introduction to the subcellular aspects of energy production. The word subcellular is the key word in my definition of the "New World of Exercise Physiology". As biological sciences have found out, so too have the exercise physiologists in physical education discovered that the key to energy production, biological adaptation, and aging must be located at the subcellular level. Once the controlling mechanisms are elucidated the solution to the more general applied problems will become apparent.

To illustrate the emergence of "The New World of Exercise Physiology" the programs for the past ten annual American College of Sports Mecicine meetings were examined. ACSM was organized in 1955 and has attracted membership from a great percentage of exercise physiologists in the field of physical education. Upon examining the annual programs we can calculate the percentages of research reports that can be classified as being at the subcellular level. Figure 1 presents in bar graph fashion the percent of research reports, at the annual American College of Sports Medicine meetings for the years 1960 through 1971, dealing with the subcellular aspects of physical activity. The great majority of the work has been reported in the past few years even though there were some pioneer works reported as early as the early 1960's. The reported work in the past two years represents the work of over 50 laboratories in the United States and Canada. It should be recognized that much of this subcellular research is of the type that can be, and is being, reported at basic research society meetings such as the Federation of American Society of Experimental Biology meetings, the Cytology meetings, or the Cell Biology meetings. The percentages shown in figure 1 will not increase much greater than the present 40% due to other aspects of ACSM such as athletic injuries, applied problems of aging and cardiovascular preventive aspects of physical activity.

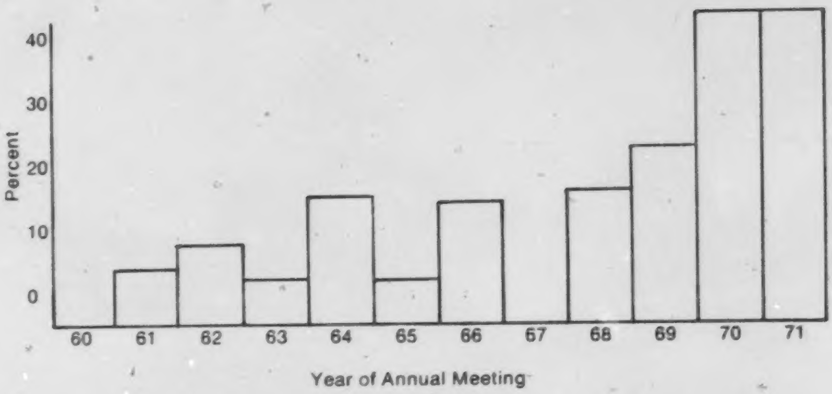

Figure 1. Percent of research presentations at the annual American College of Sports Medicine meetings classified as part of the "New World of Exercise Physiology".

It is not the purpose of this paper to present research findings but to present a discussion of the following six questions:

1) What conditions precipitated the formation of the "New World of Exercise Physiology"?

2) What are the areas of investigation that make up this "New World of Exercise Physiology"?

3) What are the research techniques and personnel preparation used in this "New World of Exercise Physiology"?

4) What are the findings of this "New World of Exercise Physiology"?

5) What are the implications of the findings of this "New World of Exercise Physiology"?

6) What is the "Future World of Exercise Physiology"?

1) **What conditions existed that led to the formation of the "New World of Exercise Psyciology"?**

In general, when conceptual problems have been around for a long time and many people have attempted to solve them but the solutions remain obscured, it may be time to re-examine the theories and/or the approaches to the problems from a new and unique view-point. The unresolved problems of the traditional exercise physiologists stimulated the formation or evolution of the new world of exercise physiology. As so often happens in basic research it is often the practical problems that stimulate new research areas. Practical problems in athletics such as the optimalization of training techniques, emphasis on strength and endurance development and the culmination of training by peaking techniques were problems that defied solutions. Problems from physical education that necessitated a new approach were such things as skill learning, growth and development related skill acquisition, health related benefits from physical activity, problems related to the aging phenomenon, general and local fatigue, hypokinetic diseases, and participation in recreational type activities. These practical problems and the failure of traditional techniques to find and implement solutions drove many people to seek the answers at the more basic level.

The solution of problems or the defining of mechanisms on one level of understanding should serve to propose questions and to necessitate the solution of mechanisms at the next more basic level. Two conditions existed, in the mid 1960's, that led to the need for a "New World of Exercise Physiology": (1) the state of the art in exercise physiology was such that the solution to the existing problems could not be recognized in the light of current theories and approaches and (2) the existing problems were such that the techniques available to the exercise physiologist, in the mid 1960's, could not provide the solutions. The apparent alternative was to attempt to find the solutions at the next more basic level, the subcellular level. The techniques of the histochemists, biochemists, electron microscopists, and biophysicists were being developed in the early and mid 1960's and farsighted physical educators suggested that their students learn those techniques and apply them to the study of the effects of exercise.

2) **What are the areas of investigation that make up this "New World of Exercise Physiology"?**

Perhaps this is an appropriate place to point out that the title of this paper limits our discussion to the physiologist's point of view. At no time should anyone misinterpret these remarks to imply that this is representative of the total exercise physiology, or even more importantly, misinterpret these remarks to imply a suggestion that the topics of this discussion represent the total consideration for explaining physical activity.

Table 1 presents a list of research topics that are being actively pursued by people in this field. The list of areas is not only incomplete but as in any active dynamic field the list should be changing faster than any one person can identify the areas. A close examination of Table 1 indicates that the areas overlap and that the biological response to activity, training and aging are varied and quite complicated. To isolate the individual factors will be a great challenge for the near future.

Table 1 represents an attempt to classify the research topics of the "New World of Exercise Physiology" into the five general subareas of histochemistry, endocrinology, biochemistry, electron microscopy, and cardiovascular supply.

Table 1. Topics of Investigation in the "New World of Exercise Physiology".

- Histochemistry
  - Muscle Fiber type alteration in specific types of activities
  - Neural regulation of muscular activity
- Endocrinology
  - Hormonal responses to activity
  - Hormonal induced alterations in energy metabolism
- Biochemistry
  - Energy production in muscle
  - Subcellular compartments and regulation of metabolism
  - Protein synthesis and control of training responses
- Electron Microscopy
  - Mitochondrial alterations during activity and training
  - Subcellular structure in aging, activity and training
- Cardiovascular Supply
  - Substrate supply by the vascular system
  - Blood enzyme concentrations and implications for training

The first general area deals with fiber typing and neural innervation of muscles. It is well known that muscles are composed of varying percentages of the traditionally classified three types of fibers; red, white and intermediate. These fiber types are based predominantly upon the relative amounts of enzymes within each fiber. It is now recognized that these fiber types can be altered by physical training and neural innervation. Furthermore, it is believed that the specific fiber types within a given muscle respond to a specific type of activity. The method employed by the nerve to bring about regulation of fiber types is not presently understood but it has been proposed that the nerve exerts this control by the release of a tropic substance that directly acts upon the muscle fiber. This myoneural junction is illustrated in figure 2.

Another basic area of investigation in the "New World of Exercise Physiology" is the study of the role of the endocrines. The endocrine system exerts a type of control over energy metabolism as well as in the development of the fiber. The exercise related role of growth hormone, testosterone, thyroxine, insulin, epinephrine, and norepinephrine are being studied. Other hormones such as the estrogens, antidiuretic hormone, angiotensin, aldosterone, and the prostaglandins in the control of energy production and the adaptations to stress need to be characterized as to their degree of involvement.

The area classified as the biochemistry of muscle has been the subject of several major worldwide symposiums in the past three years. This area is the most developed as of this time. The control of the energy pathways via enzyme concentrations, specific activities of the enzymes, substrate levels and turnover capability of the pathways are of primary importance in energy production. The stimulation of protein synthesis from DNA to RNA to proteins represent the key to understanding the role of exercise in training adaptations. That is, we know that training elicits certain adaptations within the muscle and it is reasonable to expect that these adaptations must be the result of the acute exercise stress. The enzymes and contractile elements within the muscle are proteins and these are the inducible parameters that we know change with training. Therefore, the problem remains as to what is there in the acute exercise response that acts to induce the genes to be transcribed into RNA coding for eventually translation into proteins. In our own laboratory one of the major thrusts is to characterize this acute exercise response. We do this by measuring the changing substrates of energy metabolism during varying times of acute exercise attempting to describe the inducing subcellular environment. It is well recognized that there exists in the muscle subcellular compartments where certain chemicals are contained within the boundary of the compartment. This is a very critical concept in that

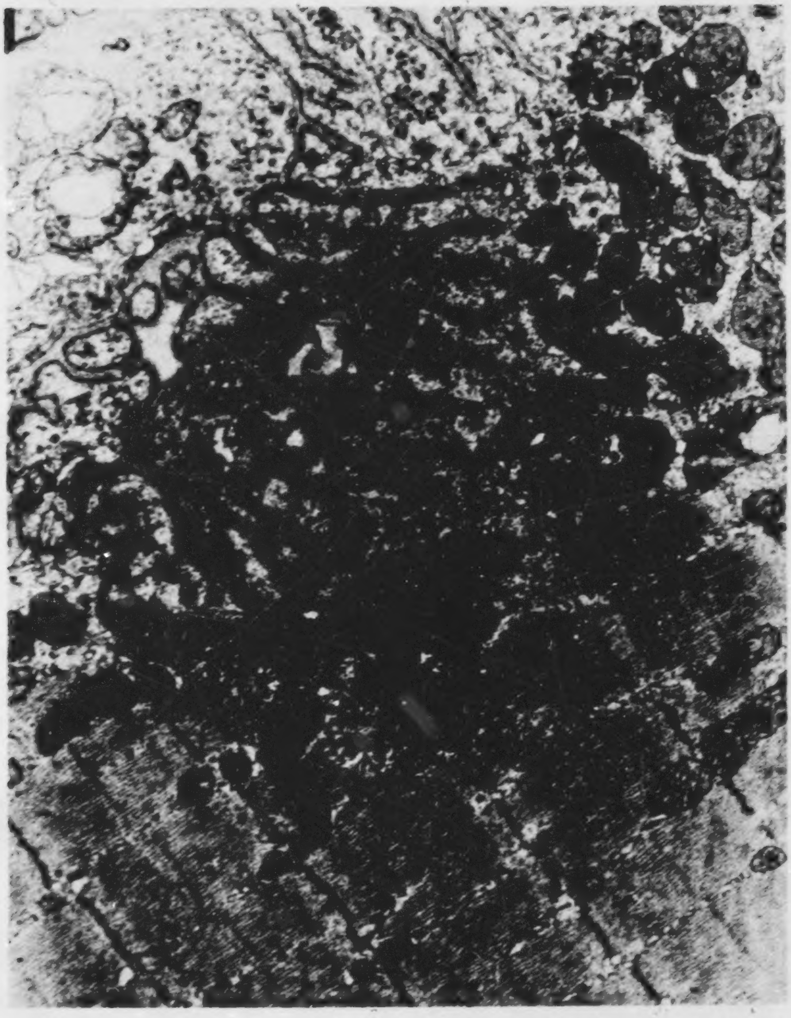

Figure 2. Myoneural junction from the gastrocnemius muscle of the rat. (x 28,000)

it reminds us that when describing the subcellular environment we can't treat the cell as a homogeneous tissue but we must keep in mind the specific compartments.

A fourth area of investigation is the study of the ultrastructure of muscle during exercise, training, and aging. As of the present time, most of this research has been confined to four or five centers where an electron microscope is available. The research has centered on the role of the mitochondrion and how this organelle is altered during exercise, training and aging. The electron micrograph in figure 3 illustrates mitochondria and their relation to a muscle fiber, heart muscle in this case. Not only has ultrastructural research concentrated on the role of the mitochondria but so has biochemistry and histochemistry. This concentration is due to the known role of mitochondria in producing over 90 percent of the ATP necessary in the muscle cell. Electron microscopic research is probably the newest of the new techniques and the role of this tool is still unclear. It is extremely difficult to hypothesize the effects of exercise, training,

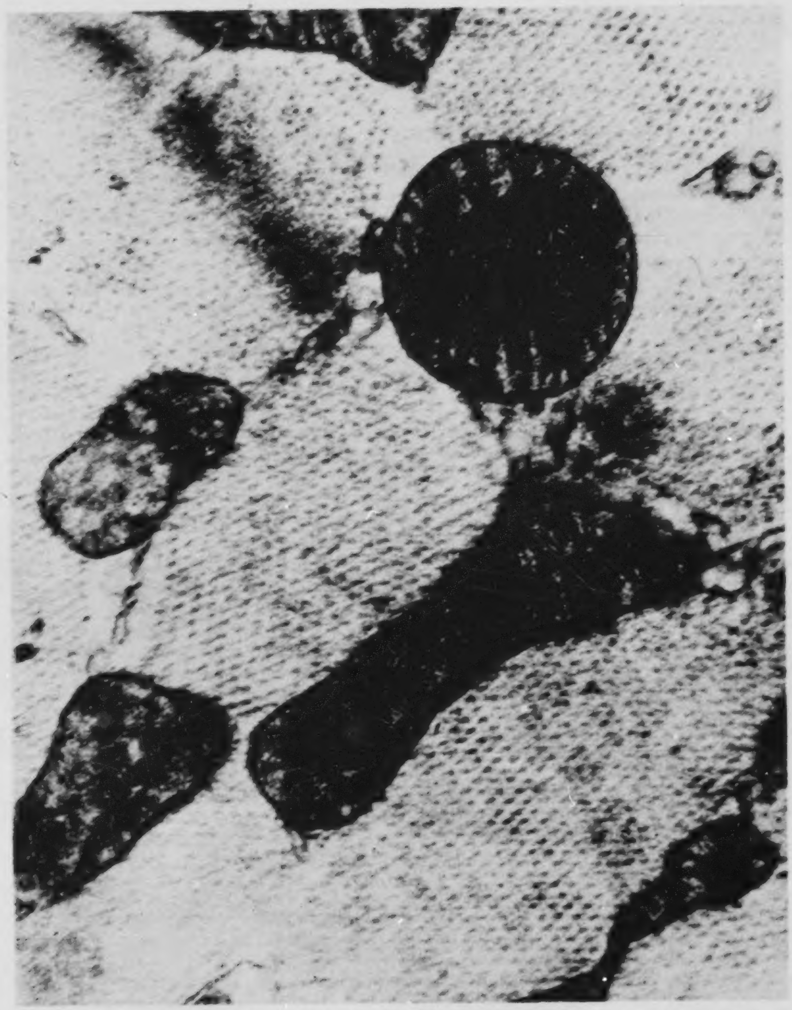

Figure 3. Paraposition of mitochondria and myofibrils in rat myocardium (x 94,000)

and aging at the higher resolving powers of the microscope but very meaningful work has been done at the lower magnifications. At the University of Massachusetts we use this tool in undergraduate classes to assess the role of exercise in mitochondrial counts, sizes and locations within the cell. The undergraduates enjoy this work and feel a sense of "threshold research" when they can find very few publications on the work they are doing.

The area of cardiovascular supply is probably the least new of the areas of investigation in the "New World of Exercise Physiology". Some of the first information in this area was gathered as early as 50 years ago. The newer information is much more complete in that the present investigators study the arterial-venous differences of the various substrates and the measuring techniques are such that additional compounds can be accurately measured.

3) **What are the techniques employed in the study of this "New World of Exercise Physiology"**?

In order to investigate the previously discussed areas of investigation an individual must possess the skills in a selected number of areas shown in Table 2. The table is used to present the type of techniques used and sample courses that one training in this area might utilize. As is true throughout this paper, the lists, tables, and figures are no doubt incomplete and represents one person's viewpoint. We now have people in the field of physical education that can teach these courses but on any one campus it is still necessary for a student to enroll in courses outside the department to get a total exposure to his field of interest.

Table 2. Techniques and Preparation for individuals in the "New World of Exercise Physiology".

Techniques

Histochemical
Histological
Electron Microscopy
Surgical
Radiochemical
Biochemical
Centrifugation
Spectrophotometry
Enzyme Kinetics

Sample Courses

Cell Physiology
Biochemistry
Endocrinology
Neuroanatomy
Neurophysiology
Neuroendocrinology
Histology
Cytology
Energy Metabolism
Tissue Respiration
Exercise Physiology
Aging and Cardiovascular
Small Animal Surgery
Physiological Psychology
Radiochemistry
Computer-Mathematics

4) **What are the findings of this "New World of Exercise Physiology"**?

Physical activity is a subfield of many of the traditional disciplines and the findings of one area, only rarely, can be attributed solely to the individuals who possess job descriptions in that particular area. That is, there is no attempt to claim that the totality of the findings presented in Table 3 can be attributed to researchers in physical education. The findings presented in Table 3 have been limited to a minimum as the purpose of this paper is not to present research findings but to present the total view of the "New World of Exercise Physiology".

From the histochemical subfield it has been well demonstrated by several workers that the muscle has the capability to alter its fiber type composition in response to training. In acute exercise it has been shown that in response to specific stimulation specific fibers are used in preference to others.

Table 3. Findings of the "New World of Exercise Physiology".

Mutability of fiber types
Supercompensation of energy substrates
Energy pathway activation
Mitochondrial alterations
Oxygen utilization independent of lactate production
Hormonal involvement
Subcellular compartments
Pre-capillary sphincters

Work in the field of endocrinology shows that the hormones are involved in the response to exercise and play a very significant part in the acute response as well as in the training adaptation phase of physical activity. The degree and the type of involvement of the hormones is related to the intensity of the activity.

The subarea of the biochemistry of exercise has probably contributed the most to the recent findings due partially to the fact that there are more workers in this field. We know that subcellular compartments exist within the muscle and act as controlling mechanisms for the exchange of nutriments, high energy phosphate compounds and substrate interactions. Energy flow is not only one way during exercise as we know that glycogen synthesis proceeds simultaneously with glycogen breakdown. Therefore, just measuring glycogen breakdown does not elicit the total picture during exercise.

We realize now that lactate production and the utilization of oxygen are only accidently correlated. That is, lactate is produced when glycolysis is increased independent of the presence of oxygen.

The ability of the body to supercompensate for losses attributed to stressful activity has been well described. This research has demonstrated that following a strenuous activity the glycogen stores within the muscle are near depletion. Given up to seven days, and a high carbohydrate diet the last three days, the level of glycogen in the muscle increases over that of the resting level prior to the strenuous activity.

The role of the mitochondria in supplying ATP is now well recognized and this organelle now occupies the research time of many of the "New World" people. The coupling and uncoupling of oxidative phosphorylation (utilization of oxygen coupled to the formation of ATP) could be postulated to contribute to the availability of ATP for the energy of contraction. The uncoupling of this mechanism would allow the utilization of oxygen without the formation of ATP—this may be the role of the oxygen used after exercise—the well known oxygen debt.

Individual researchers studying the substrate and blood supply to working muscle have found that blood flow to muscles can be readily assessed by measuring arterial-venous differences. With the description of arterial shunts controlled by pre-capillary sphincters the true blood flow, that is, the flow transversing the actual working muscle fiber, may not be so indicated by the total muscle blood flow.

The area of ultrastructural research is too new to have a list of findings but the few studies reported show that exercise and training can bring about increases in the number and sizes of mitochondria in active skeletal muscle.

One conclusion we can derive from the known findings is that exercise, activity, sport, athletics, training or what have you is much more specific than previously thought. That is, a specific exercise elicits a specific response in a specific person at a specific point in time.

5) **What are the implications of the findings of this "New World of Exercise Physiology"?**

The implications of this research are somewhat speculative as the majority of the results or findings are very new. Nevertheless, in my humble opinion, there are several areas to which the research can be directly applied. We know that the mitochondrial concentration within in the muscle is related to oxygen consumption, and the turnover time of mitochondria is about 30 to 40 days (time for the mitochondria to be broken down and rebuilt). The question remains on applying this to training time and detraining time. That is, by observation we know that within 4 to 5 weeks after training the physical condition of the individual is greatly reduced. The mitochondrial turnover data may provide the answer as to why this is true.

The evaluation and optimalization of training techniques should be possible by measuring key substrates and/or enzymes—this work is already in progress at a physical education laboratory. We can already make research-based predictions on the peaking techniques which are so valuable to the athlete. Other areas such as aging, recreation, growth and development and teaching techniques are being or hopefully will be examined for immediate applications.

"New World" people are caught up in the research squeeze versus the recent emphasis for relevance and are therefore spending time on application of physiology to public schools. For example, at the 1972 State of Massachusetts AHPER meeting there will be a symposium on the application of physiology of exercise to the public schools. The emphasis will be on what is and what can be taught in the public schools in order to teach a **biological awareness** concept to the total population of school age people.

Think tanks and/or symposiums along with the applied interest of researchers could produce far reaching results based on the present state of the art of the "New World of Exercise Physiology".

6) **What is the "Future World of Exercise Physiology"**?

Obviously, at this point in time ideas concerning the future direction of exercise physiology are biased by the present "New World of Exercise Physiology". It seems reasonable to simply project the new world materials into the future world as shown in Table 4.

We can expect increasing attempts at pharmacological control of such variables as physical activity, inducement of training adaptations and the retardation of the aging phenomenon.

The concept of neurotropic substances is very inviting and more people may get involved in this area. Subcellular compartmentation, mitochondrial turnover, and computer simulation are all related in the role of energy production for activity and training.

More practical problems such as optimalization of training and peaking techniques and the subcellular aspects of aging will increase in popularity. At the other end of the relevance scale, mathematical models and theories such as a specificity of exercise theory are urgently needed to provide an integrating concept to substitute for our present relatively independent investigations.

In conclusion, we should be convinced that in the 1980's without a recognition of the biological organism's response to stress it will be most difficult for the

Table 4. New and Critical Areas of Research for the "Future World of Exercise Physiology".

Pharmacological control of activity, training and aging adaptations
Neurotropic substances
Subcellular compartmentation
Computer simulation of energy systems and control mechanisms
Mitochondrial turnover related to training and detraining time spans
Oxygen uptake related to mitochondrial concentrations
Growth and development and aging
Optimalization of training and peaking techniques
Mathematical Models
Specificity of exercise theory
Use of cytochemistry and radiochemistry

graduates of physical education to keep abreast with the fast changing society. The existence of a School or department at the university level implies an obligation of that department to provide leadership in teaching and education as well as in the research that has been the main topic of this paper. Our society places a high value on the education of the individual. Education, as we know it, has an obligation to educate for the present and for the future. That is, we must provide a learning experience for the present as well as forming working concepts so each individual will be capable of applying future knowledge to his own situation. It is pure folly to assume that life (and specifically the physical education profession) will remain status quo until our 1972 graduates are past their peak contribution years. For example, the expected age of persons born in 1990 will be approximately 120 years—how will physical educators handle these persons? Even now it may be too late as the 1972 graduates of our colleges will have active professional careers that will peak between 2000 and 2010. An understanding of physiological mechanisms, as well as the sociological and psychological interactions, will be essential to any future physical educator planning to contribute to our profession or to our society.

Finally, in "The New World of Exercise Physiology" we do not need additional laboratories with gas analysis equipment, spirometers, skin calipers, etc., but we need the spectrophotometers, the centrifuges, the microtomes, the microscopes, and the electron microscopes. Physical activity, sports, athletics or exercises is what makes us unique and the study of exercise at the subcellular level will provide us with the research base to insure that skill learning, movement education, humanistic education, physical fitness programs, recreation, sport, and athletics have a carry over type of effect upon the total population of people. It is not the deep concern of the "New World of Exercise Physiology" that physical education be defined or have an identifiable body of knowledge, but it is our concern that the area involving the response of the body to physical activity is adequately and aggressively researched and understood.

The New World of Biomechanics of Sport

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The principles of biomechanics have been successfully applied to a variety of disciplines seeking solutions to problems of human movement. As a result, researchers from industrial engineering, aerospace science, anatomy, physical rehabilitation and related areas have made significant contributions to the theoretical concepts of biomechanics and ultimately to our understanding of how man moves. The development of biomechanics as an area of research within physical education in the United States, however, has been noticeably slow until very recent years. The purpose of this paper is to reflect upon possible reasons for this slow development and to describe events which have led to the recent emergence of biomechanics of sport.

Administrators in physical education have traditionally emphasized teaching as the primary function of the profession. Consequently, faculty members are seldom provided ample time or financial support to conduct research. Although the quantity of research has increased, it has been primarily the result of expanded graduate student research rather than the productivity of faculty researchers. Unlike many disciplines in which research is emphasized, often to the detriment of teaching, physical education has greatly underestimated the importance of research. Because of the inability of the profession to adequately support faculty research, a tragic waste of academic talent has resulted. A typical young Ph.D. who has completed a rigorous three or four year research training program finds upon accepting his first position that his teaching and other responsibilities leave no time to launch a career in research. After a few years he becomes hopelessly outdated and resigns himself to becoming an "armchair researcher" who merely advises graduate students. It is not surprising that development of research programs in biomechanics has been thwarted as a result of the low priority given research within physical education. However, this situation has affected all research specializations within the field and only partially explains the lack of progress in biomechanics.

Physiology of exercise is one specialization which has demonstrated continuous growth over the past two decades. Men like Cureton and Karpovich produced many well trained scholars and researchers who, as professional workers, established laboratories, initiated research programs and began attracting and developing more individuals with an intense interest in exercise physiology. This multiplying effect has resulted in hundreds of active teacher-researchers in physiology. In fact, this discipline, in some instances, became so dominant that to some members of the profession, research in physical education and exercise physiology were one and the same. Administrators desiring to initiate research-oriented graduate programs often began by hiring a young Ph.D. with special training in physiology of exercise. As the discipline of exercise physiology has reached a relatively high level of development it has become increasingly clear that not all the questions surrounding human performance can be answered through physiological research. It is entirely possible that the major contribution of physiology to physical education may have already been made. This has led to the realization that greater breadth of research is needed to adequately study the "whole man" engaging in sport activities.

The development of exercise physiology over the past twenty years has greatly influenced the emergence of biomechanics. A model for development of a research specialization within physical education has been clearly demonstrated. This model consists of active faculty researchers stimulating graduate students to develop research competence while seeking high quality academic work in supporting disciplines.

Only in recent years has this developmental model been utilized even though interest in kinesiology has existed for a long time. During the 1930's, Cureton conducted studies of the mechanics of selected sports skills and promoted the use of cinematography to measure external mechanics of human motion. From that time until the middle 1960's little or no progress was made in what has traditionally been called kinesiology, an area confined to an undergraduate course emphasizing anatomy and elementary mechanics. In a few instances a graduate course with a title such as mechanical analysis of sport skills has been offered. The textbooks remained relatively unchanged and teachers of kinesiology received no special training to prepare them for teaching such a course. The little advanced work which did exist was conducted primarily at the University of Wisconsin under the direction of Ruth Glassow and at the University of Southern California by John Cooper. These programs, somewhat narrow in focus, were concerned with cinematographic analyses of sports and fundamental movements and did not stimulate widespread interest in research in kinesiology. One reason for this being that the cinematographic procedures used were relatively imprecise, tedious and time consuming so that most of the graduates were not motivated to continue work in this area.

In spite of the relatively stagnant state of biomechanics, remarkable progress has occurred within the past four years. One indication of this has been the number and quality of seminars and conferences held in recent years. The First International Seminar on Biomechanics held in Zurich in 1967 represents the beginning of accelerated development. This was followed by the Second Seminar in Eindhoven, Holland in 1969 and the Third, in Rome in 1971. Meanwhile, interest within the United States led to the first biomechanics meeting in North America; the Symposium on Biomechanics held at Indiana University in 1970. This was followed in 1971 by a Biomechanics Conference sponsored by the Biomechanics Laboratory at Penn State University. Because of the upsurge in interest in the United States, the Fourth International Seminar on Biomechanics has been awarded to Penn State University. This seminar to be conducted September 3-7, 1973, will be only the second international meeting related to research in physical education held in America, the first being the 2nd International Congress of Sport Psychology. Although the scientific sessions to be held in conjunction with the Olympic Games in Munich are noticeably void of biomechanics topics, preliminary plans are underway to hold sessions on biomechanics in Montreal in 1976.

The basis for development of a new discipline lies in the graduate programs producing the young researchers of the future. Whereas there were virtually no such programs in biomechanics of sport in the U.S. five years ago, there are now at least seven active research and graduate programs. These are directed by Marlene Adrian, Washington State University; John Cooper, University of Indiana; Stanley Plagenhoef, University of Massachusetts; James Hay, University of Iowa; Elizabeth Roberts and Joan Waterland, University of Wisconsin; Carole Widule, Purdue University and our program at Penn State. These programs are characterized by ongoing research conducted in well equipped laboratories and based upon interdisciplinary academic training. For example, at Penn State our doctoral students take courses in such diverse fields as neuroanatomy, engineering mechanics, biophysics, mathematics and computer science. The application of basic knowledge from these disciplines to the study of human movement has been of special significance to upgrading the quality of research in biomechanics. Further, the interaction by these students with faculty and students in other departments has been an important aspect of their preparation for future interdisciplinary cooperation.

Paralleling the increased graduate activity has been very rapid progress in research methodology and instrumentation technology. These developments have occurred in such a short time it is difficult to comprehend the changes. Improved cameras, automated film analysis systems, laboratory digital computers used for instant on-line data recording and improved electromyographic measurement systems have all become part of modern research laboratories. The use of computer technology has completely revolutionized the recording, calculation and analysis of biomechanical data. Mathematical modeling and computer simulation of sports movements are now in the beginning stages. Utilization of engineering and photographic personnel has been one of the major factors in the development of improved instrumentation and measurement systems. For example, at Penn State we have been fortunate to have two full time engineers and a research photographer to provide the technical support for our research and graduate program. These men have also been effectively used as teachers in an informal setting.

Based on my awareness of the situation in North America and in parts of Europe, I believe the recent progress is only an indication of developments which will occur in the next few years. In addition to the American universities mentioned previously, other schools are initiating courses and developing laboratories. A number of Canadian universities are currently establishing programs. These include the University of Saskatchewan (Dr. Doris Miller); the University of Montreal; University of Waterloo (Dr. Peter Stothart and Mr. Robert Norman); University of Ottawa (Mr. Charles Cotton and Mr. Rene Therrien) and others.

A number of European institutes are improving their research facilities and expanding their graduate offerings. In West Germany there are two rapidly developing research units. The Biomechanics Institute at Cologne under the direction of Prof. Groh, has a very active program. Prof. Ballreich in Frankfurt is directing the development of a new institute that will be one of the very best upon completion. Just a year ago an outstanding facility was completed at the University of Jyvaskyla, Finland under the leadership of Dr. Komi. In Innsbruck, a new laboratory supervised by Prof. Fetz is presently under construction which will no doubt be an excellent facility. The research laboratory at the Federal School of Physical Education in Zurich is undergoing major improvements under the able leadership of Prof. Wartenweiler. Improved programs can be observed in Brussels and Leuven in Belgium and in Budapest and Prague. Perhaps one of the most outstanding programs at the present time is in Leipzig, East Germany, under the leadership of Professors Hochmuth and Marhold. Very active research programs can also be found in Japan. What is unusual about the widespread interest in biomechanics of sport is that most of it has emerged within the past five years. It appears certain that this trend will continue so that this young discipline will reach full maturity during the next decade.

In summary, development of biomechanics as a research specialization within physical education has been very slow until recent years. If adequate administrative support is forthcoming, the next decade will witness the maturation of this young discipline as indicated by the increase in graduate programs, research laboratories, seminars and conferences, published research and new textbooks. Certainly during this period the New World of Biomechanics will become a reality.

Methodology and Experimental Design in Physical Fitness Training Investigations

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This paper deals with selected procedures and designs appropriate for physical fitness research. Its purpose is not to minimize past research studies, but to suggest ways future research might be improved and standardized in design and methodology. Through standardization, data collected by different investigators will be more comparable and thus give added insight and impetus in answering the many questions concerning exercise and physical fitness. Research can either act as a synergist in which one study leads to another, or as a means of verification or rejection of certain hypotheses. However, this is possible only through some standardization of training methods, designs, and reporting. For example, quantification of training as to frequency, duration, and intensity has been omitted from many reports. The lack of such data makes interpretation of results difficult and often leads to conflicting findings.

Because of the breadth of the meaning of "physical fitness training," the authors have limited their comments mainly to cardiovascular endurance training programs. More specifically, training programs will be discussed in respect to quantification, modes of evaluation and training, subject selection, and experimental designs.

TRAINING PROGRAMS

Quantification

The physiological effects of exercise are well-documented in the literature, but the quantification of the regimens producing these effects has been loosely controlled and often times neglected during the investigation. Terms such as walking, jogging, and running are vague in themselves and have different meanings to different investigators. If training were expressed in common units of measure, such as mph, kgm/min, total Kilocalories/min., etc., a common denominator could be established.

Time-motion analysis affords the investigator an objective and valid means for quantifying training programs as to calorie expenditure. The method of estimating calorie expenditure is not new to physiologists or physical educators. Durnin and Passmore (11), and Consolazio, Johnson, and Pecora (7) have outlined much of the methodology connected with this technique. The most accurate means for assessing energy expenditure would be to directly monitor training by indirect calorimetry (open circuit). Another method would be to simultaneously analyze the energy cost and heart rate values for given levels of work, that is, walking at 3 mph, jogging at 6 mph, etc., and then, during training sessions, heart rate could be monitored and corresponding calorific equivalents assigned. These techniques have not been practical for use with large groups. A more practical method would be to establish the energy cost equivalents for the various components of the training program and then, by time motion analysis, estimate the energy cost. Consolazio, Johnson, and Pecora (7) concluded that:

> By the use of personal activity diaries and appropriate energy cost tables, the total daily energy expenditures of an individual or group . . . can be estimated with reasonable accuracy.

In estimating energy cost by time-motion analysis, it must be remembered that the more complex the exercise routine, the more difficult the estimation. Walking, jogging, and running on a level surface facilitate analysis, whereas programs that include calisthenics, gymnastics, games, etc., make the analysis more difficult. Other factors such as environment, skill level, training surface, body weight and composition can further complicate estimations.

Heart rate has long been used as a means for estimating intensity of training (1) because of its linear relationship with oxygen intake during submaximal exercise and its relative ease of determination. Laboratory techniques for the determination of exercise and post-exercise heart rate have been accurately assessed through direct ECG or cardiotachometer recordings (9, 19, 21), and via biotelemetry systems (17, 19). Palpation and auscultation techniques used during post exercise have been used to estimate exercise heart rate in non-laboratory situations (12, 21, 24). The latter method is practical for group use if subjects (**Ss**) are sufficiently trained in the proper technique. Most errors result from subject counting errors, delay in counting heart rate upon cessation from activity, and a counting period that is too long. The site of heart rate pick-up is important, with the apical or carotid pulse being superior for post-exercise conditions. For subjects who have difficulty with this pick-up technique, the use of a stethescope can be helpful. The rapid decrease in post-exercise heart rate and the magnitude of decline are in direct proportion to the intensity of effort. Total time of the counting period is closely related to rate and magnitude of heart rate deceleration which complicates the picture as to accuracy in counting. A counting period of **10 seconds is recommended**. Using these techniques, a difference of less than 2% in heart rate reduction was found within 12 to 14 seconds after cessation of running in men training at 80% to 90% of maximal heart rate (24). Greater differences usually occur at lower training intensities and/or with an extended counting period.

Duration

Training experiments vary in length from a few weeks to many months. Generally training effects continue over a period of months (and years); therefore, short-term projects of a few weeks may lead to spurious or conflicting results. In an investigation where running is being evaluated, untrained middle-aged **Ss** take several weeks of low to moderate levels of conditioning to get their legs in shape. Therefore, 8 to 10 week programs may only include 4 to 6 weeks of cardiovascular endurance training, since the leg muscles and ligaments appear to be a limiting factor in the initial stages of training. This fact is particularly important when comparing different types of regimens, such as varied intensities or frequencies of training. An example showing the importance of duration in designing training studies would be two frequency of training experiments conducted by Pollock (22, 23). The maximum oxygen intake (max VO_2) and heart rate changes of middle-aged men who ran 30 min., 2 or 4 days per week for 16 and 20 weeks were compared. In both studies, experimental groups improved significantly at both mid and final evaluation periods. However, significant between group differences were noted only after 16 and 20 weeks, respectively. Bartels (4), in two independent studies, using similar frequencies with young men, found no significant differences between experimental groups after 7 and 13 weeks of training. Therefore, it is recommended that endurance training investigations of this nature should be conducted a **minimum of 16 to 20 weeks**.

Modes of Training Versus Modes of Evaluation

The authors question the validity of indiscriminent intermixing of modes of evaluation with modes of training. A treadmill run or walk, bicycle ergometer or bench step test are the most common modes of laboratory evaluation used today. Due to the expense of a motor-driven treadmill and metabolic analysis equipment, and expertise needed for measuring max VO_2, many investigators used the bicycle ergometer for either an actual determination or submaximal heart rate response test for prediction of max VO_2.

The Astrand Rhyming bicycle ergometer test (AR) and subsequent nomogram is most commonly used (2). The validity of this test is controversial. It should be noted that the Astrands do not use this test for research and recommend it only for screening purposes. With this in mind, the AR has been shown to be an adequate predictor of max VO_2 if age, status of training, and maximal heart rate are similar to the original sample; that is, using trained young men, accustomed to riding a bicycle, and having a maximal heart rate of 195 beats/min.

Some investigators have shown the AR to compare closely with results of actual measures taken on the treadmill, however, their **Ss** were generally younger men and/or in good physical condition (15, 34). Also, large inter-subject variations are prevalent. Davies and Shephard (10, 29) reported underpredictions of max VO_2 to occur with North American middle-aged men. This was thought to be a result of deconditioned leg muscles and their subsequent inability to cope with bicycle riding. Rowell, Taylor and Wang (28) reported an underestimate of actual max VO_2 of 6% with endurance athletes, and 27% before and 14% after 2½ to 3 months of training with similar aged sedentary young men. Several investigators have demonstrated the effect of specificity of exercise and its relationship to measurement of max VO_2 (3, 16, 33). Therefore, the estimation of maximal working capacity and/or the evaluation of training effects of a population where the bicycle is unfamiliar may lead to erroneous results (25). Recent evidence (26) whereby groups were evaluated by treadmill running, walking, and bicycling and subsequently trained in one of these modes, support the need for caution in selection of modes of training and testing.

Experimental Treatments

Many studies have been completed which focus on a single factor, such as different levels of intensity. These studies have been valuable in giving us general guidelines concerning the factors that influence the effects of training. As a result, we know that certain modes of activity are better than others for improvement in cardiovascular function. In general, the more work, done more intensely, and more often cause better changes. It is increasingly apparent, however, that one cannot discuss any independent variable in isolation. The mode of physical activity cannot be adequately studied without considering other aspects of training (intensity, duration, and frequency) and aspects of the **Ss** (age, sex, initial state of condition, etc.).

The need now is for multi-factored studies that include several of these factors in the same study (holding the other factors constant) so that the interrelationship (interaction) among the factors can be determined. One would suspect, for example, that there is an interaction between age, initial level of fitness and the amount, intensity, and frequency of training that should be recommended. In addition, these factors would have to be qualified further in terms of the mode of activity chosen for training. In general, if there is no significant interaction between factors, this lends support for the conclusions about the primary factors studied (main effects). However, if there is a significant interaction between factors, conclusions about the main effects must be qualified in terms of other factors studied. These qualifications based on interactions will provide a basis for making exercise prescription more precise.

Selection and Assignment of Subjects

The classical experimental design randomly selects **Ss** from populations and randomly assigns them to experimental and control groups. Although, it is statistically preferable to assign **Ss** to groups at random, (31), this procedure is not always possible. Having different groups within one class is sometimes prohibited by the nature of the treatments or facilities; nor can teachers have students assigned to different classes at random. In working with adults, scheduling problems may not allow a random assignment.

Is it justifiable to assign persons who volunteer for regular physical activity programs to a sedentary control group? In our opinion, all **Ss** who meet the entrance requirements, who want to participate in regular physical activity, and are accepted into the program should be assigned to groups that include physical activity—not to a sedentary control group. Oftentimes, there are more volunteers than can be included in the training program and the excess can be assigned to a control group. Their cooperation is usually good when an understanding exists that they will be admitted to a training program after completion of the control period. We realize that using **Ss** not interested in joining the fitness program as control **Ss** is not the best theoretical model, in that experimental and control groups could come from different populations. However, it is believed that this weakness in design is preferable to the assignment of **Ss** interested in deriving benefits from exercise to inactive groups. Although the effect of "volunteerism" may be a factor in certain types of research, it is felt that the effect is minimal in physical training experiments. The important factor is to insure that the control **Ss** meet the same physical criteria established for the experimental group(s), that is, age, status of fitness, height, weight, etc.

To help insure the collection of valid base line data prior to the commencement of training, an orientation period is recommended. Orientation would include enough practice sessions to properly acquaint subjects to testing protocols and familiarization with laboratory equipment and personnel. These precautions help reduce anxieties, and give **Ss** more confidence when taking tests.

Another problem connected with long-term training investigations is control of other variables in the **S**'s life. Work and school vacations and holidays make continuous training difficult. Eating and outside activities also vary with holiday and seasonal changes. One workable plan for University based programs has been to recruit **Ss** in early September, then by using one month for habituation and evaluation, a 20 week study can be completed by Easter. Whatever, the case, **Ss** should be selected only if they can meet the criteria for diet, outside activities, holidays, etc., established by the investigator. Realistic criteria and rules concerning these outside variables must be set up and clearly understood prior to the recruitment. Periodic checks should be made to determine that the criteria are being followed.

RESEARCH DESIGNS

Some designs establish degree of relationship or association and cannot be used to infer casual factors. Unfortunately, some of these designs have been incorrectly used as bases for generalizations about cause and effect. Although the emphasis of this section will be on experimental designs, the first two parts will deal with designs that cannot be used to generalize concerning cause and effect.

Cross-Sectional

It is possible to study the differences among different groups of **Ss**; e.g., athletes vs. non-athletes; different types of athletes with each other; active vs. inactive; persons with disease or risk factors with those without disease or risk factors, etc. These studies can determine **whether a difference exists, but not why!** Thus, it is possible to determine if more active persons are different from less active persons, but it is not proper to conclude that any difference is **caused** by activity. These studies are the only possibility in some cases, for example in studying the possible causes of atherosclerosis, one does not intervene in persons' lives to increase risk factors simply to "prove" that they in fact cause cardiovascular problems. In addition, these studies can be valuable in establishing hypotheses to be tested with an experimental design, but they cannot be used to test such hypotheses.

One Group

The practice of comparing tests before and after a specific treatment in a single group is another example of a design that cannot be used to determine cause and effect. Again, whether a difference exists within the group before and after the treatment can be determined, but any difference found cannot necessarily be attributed to the treatment. Other things, such as retaking the test, unknown changes in the testing situation, change in weather, normal growth, etc., could also cause changes especially in the performance type tests often used. The important question is not did this group change, but did this group change more than would have been expected normally? The second question can only be answered by comparing the experimental group with a control group. **Within group analysis generally cannot answer the question**—it is **the between group analyses that can be best used to determine the effects** of specific treatments.

Experimental Designs*

Physical education and fitness researchers seldom have large populations from which **Ss** can be randomly selected and assigned to groups. Two major limitations result from this situation; namely, the conclusions from the studies are limited, and initial differences among groups may not be chance differences. Whereas studies that randomly select and assign samples from large populations can generalize back to that population, conclusions drawn from intact, non-randomized groups apply only to those groups. In both cases, however, replication of findings in other populations or samples would appear necessary before application of the results.

There are situations where random assignment of large samples is possible and desirable. In these cases, the classical experimental design of analyzing between group differences following the treatment(s) can be utilized. However, in those situations where random assignment of large numbers of **Ss** is not possible or desirable, there are other possibilities.

Rotated groups. One design is to have each group participate in all of the treatments. It is important to systematically order the sequence of treatments so that the ordering effects can be partialled out, e.g., using Latin Square to determine the sequence of treatments, then assigning an equal number of **Ss** at random to each possible order. Since all **Ss** have participated in all treatments, the analysis is among all the treatments for all the **Ss**. A paried ***t*** test or Wilcox on Matched-Pairs test could be used for two treatments; and a repeated measures ANOVA would be appropriate for more than two treatments. Although this design has the advantage of all **Ss** participating in all the treatments, it is sometimes impractical for longitudinal studies and certain problems that do not lend themselves to this design. For example, one could not investigate the question of what type of training is best for the first few months of training in sedentary adults with the rotated group design, since the **Ss** would no longer be sedentary after the first treatment. In general, when the results of the treatments would be additive, this design would not be appropriate.

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*Some would prefer to call some of these designs quasi, pseudo, or almost experimental designs. For a more detailed discussion, see Campbell, and Stanley.[5]

Groups rather than individuals. Another design that would be possible if there were several intact groups available would be to randomly assign several groups to each treatment and the mean of the group used instead of individual scores. In other words, this design used the classical experimental design except that entire groups (means) are used in place of individuals. This option is appropriate in situations where large numbers of groups are available, such as in joint research involving several different research stations.

Pre-test analysis. In the classical experimental design, initial differences are chance differences. It should be noted that random assignment does not eliminate initial differences and therefore initial differences should be determined even when using those procedures. The importance of testing initial differences after random assignment is inversely related to the sample size, that is, the smaller the N, the more important to test for initial differences. Since intact, non-randomly selected and/or small groups are many times used in physical fitness research, it is helpful to determine the initial differences among the groups on dependent variables and other important variables that might influence the study. As suggested by Rosemier, (27), an elevated significance level should be used for testing the initial differences. Although the statistical tool will be the same for the pre-test, and other analyses used during and after the treatment(s), the objective of the statistical procedure is different and therefore different significance levels should be adopted. In the **pre-test** analysis, the question is, **are we reasonably sure that there are no initial differences?** The analysis **during and following** the treatment(s) asks, **are we reasonably sure that any differences were caused by the experimental treatment (s)?** Therefore, a larger significance level is used on the pre-test to increase the chances of finding any initial differences, and a smaller significance level on the analyses during and after the treatments to decrease the probability of "finding" chance fluctuations rather than differences caused by the treatment(s). As a rule of thumb, we would suggest that the significance level used on the pre-test be 4 to 5 times greater than the one used on the post-test. For example, if one wanted to use the .05 level on the post-test to determine the effects of the experimental treatments, then the .20 level could be used on the pre-test to determine any initial differences.

No initial difference. If there are no initial differences at the elevated significance level on the pre-test, then the initial scores can be ignored and the differences among the groups (treatments) can be determined solely on the basis of the post-test. Thus, in the example given in the preceeding paragraph, if the groups were not different at the .20 level on the pre-test, then we would conclude that any differences beyond the .05 level on the post-test were caused by the experimental treatment.

Adjustment for pre-test difference. If there is an initial difference among groups, then the analysis of covariance can be used, using the post-test dependent variable as the criterion variable and the same dependent variable on the pre-test as the covariate[*] (6). In other words, if the groups were different initially in max VO_2, then the pre-test score on max VO_2 would be the variable on which the groups would be statistically matched (covariate), and the question asked would be: if the groups had started equal on this variable, what would be the differences after training (the post-test max VO_2 score would be the criterion variable). A similar procedure would be to analyze the difference in improvement (thus the gain score—difference between the pre and post-tests—becomes the criterion measure). Again, conservative conclusions are warranted since this statistical adjustment does not completely erase the fact that the groups were initially different. Groups starting at different levels might react differently to the treatments and one unit of improvement might be easier at certain levels.

Paired groups. If there are initial differences, another procedure is to match individuals on the primary dependent variable (32). Thus, only the **Ss** in one class who could be paired with **Ss** from another class would be used for the statistical analysis. This does not mean that the entire group could not go through the training and testing, it simply means that only those who can be paired would be used in the research design and would in fact constitute the research samples.

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[*] More than one covariate can be used—for example, one could use both age and the pre-test dependent variable as covariates.

Multi-Factor Design with Single Control Group

The emphasis thus far has been in answering the question concerning absolute changes caused by experimental treatments. These changes are determined by comparing the experimental group (s) with a non-training control group. Another question that may be even more important at this time is what are the relative changes caused by different types of experimental treatments. This question can be answered by comparing various experimental groups with each other.

To illustrate a design interested in answering the relative questions, one might determine the relative effects of total amount of work and intensity of work in physical fitness programs. Thus there would be two independent variables (factors); namely, different amounts of total work, and different intensities of work.[*] Thus we might have the nine groups found in Table 1. The other factors that would influence the training, e.g., type of activity, frequency, sex, level of fitness of Ss, etc., would be held constant or equally distributed among the groups. A two-way analysis of variance (3 x 3) would determine the relative values of total amount of work and intensity, however, it would not answer the question concerning the absolute changes made by the groups. In other words, the two way ANOVA would determine which of these factors (and/or interactions) was more effective, but it would not determine if all, or any of the training groups had made significant fitness changes. It would obviously not be possible to include a meaningful 0 under either intensity or total amount of work. Winer (35) has suggested a design that will allow both the absolute question to be answered by comparing the training groups with a single control group and the relative effects of the factors involved, in this case, two-way ANOVA.

TABLE 1
TWO FACTOR DESIGN WITH SINGLE CONTROL GROUP[*]

		Intensity (% of Max)		
		50%	70%	90%
Total Caloric	300	1	2	3
Cost of	500	4	5	6
Work	700	7	8	9

10 = Control

[*] See Winer (35).

Significance Level

The arbitrary decision concerning the significance level at which conclusions will be drawn depends largely on what kind of decisions are to be made on the basis of the study. Since there is some disagreement concerning what level should be used, it is recommended that all probability levels be reported, thus, persons who want to decrease Type I or Type II errors more than the level used in a particular study can do so. In general, when attempting to differentiate among different types of training, using small samples in a field situation, larger significance levels would seem appropriate. Considering all the variables that are typically not controlled in such studies, it would appear promising to find differences at the .10 or .20 level. It is especially true when trying to decide among different combinations of mode of activity, frequency, amount, etc., that the decision should be made on the best information available and very small significance levels finding many "non-significant" differences are not as beneficial as more powerful levels of significance.

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[*] If several testing periods are included during the training period then the testing periods can be included as another factor (repeated measures).

The level of significance which will be used to draw conclusions from any one study should obviously be established **prior** to collection and analysis of the data. The significance level for initial differences (discussed above) should be 4 to 5 times larger than the level selected for conclusions.

Power

Power of a statistical procedure refers to the probability of rejecting the null hypothesis when there is really a difference. The power in a research design can be increased three ways: (1) increase the significance level; (2) increase the sample size; and (3) decrease the variability of the tests. It is recommended that attention be given to all of these areas in an attempt to locate differences that exist. An increased significance level has already been suggested. One obvious caution with this approach is that increased significance levels also increase the possibility of "finding differences" when none exist. Increasing sample size has not been emphasized, although the largest sample size that can be adequately tested and trained should be used. **The emphasis,** however, **should be on adequate testing and training rather than size.** By estimating the variance of the tests, one can determine optimum sample size for a particular significance level, however, fitness researchers seldom exceed that number. Finally, everything possible should be done to standardize the testing situation which will minimize error, increase reliability, and improve the power of the statistical procedures.

Data Points

Many of the illustrations in this paper have, for simplicity, used two groups with two testing periods. In most cases, three should be the minimum number of testing periods and minimum number of levels of an independent variable. When only using a pre and post-test, one has no information concerning the changes between the two testing periods. It is probable that some of the controversies in the literature have been caused by observing variables that react in a curvilinear fashion to training. Thus, depending on the length of training, one would find decrease, no change, or increase due to training. Several testing periods (data points) would be helpful, but three would seem to be a minimum. The same argument can be used for including more than two levels of an independent variable; high, moderate, and low gives more information than just high and low. For example, the "inverted U" theory concerning anxiety and performance could not even be tested when only using two levels of anxiety. It is not always possible to include several levels of independent variables, but it is strongly recommended that at least three be included where possible.

Replications

It should be emphasized that the research limitations discussed in this paper should not be taken lightly. Some possible alternatives for conducting research studies in spite of the limitations have been suggested, however the results of any one study is usually not sufficient for broad generalizations. It is extremely important to determine what findings can be achieved from various experimental treatments consistently in different studies. Similar findings found in repeated studies is more impressive than the findings from any one study. For example, it is more important that Pollock, **et al.** (22,23), have found differences between 2 and 4 days per week in repeated studies with different samples, than the fact that the findings were significant at a certain level in any one of these studies.

There are several statistical procedures to answer any one research question (6, 13, 18, 30, 32). (see Table 2). If using tests scored on an equal interval scale, with fairly large samples of about equal size, and if there is sufficient technical hardware and assistance, the parametric statistics are recommended because of their higher power. If the tests can only rank order the **Ss**, the samples are small and/or unequal, and there is little technical assistance, non-parametric statistics are appropriate.

Dependent Variables

It is difficult and often impractical to base conclusions on the results of a single dependent variable. Conversely, it is impractical to include a myraid of variables. The former may lead to spurious conclusions because one test cannot be

TABLE 2

SUMMARY OF PARAMETRIC AND NON-PARAMETRIC STATISTICS[14]

	Parametric*	Non-parametric**
Assumptions	Random sample from normally distributed population	
Scoring	At least equal interval	Rank Order
Central Tendency	Mean	Median
Variability	z, s.d.	Percentile, quartile
Correlation	Pearson r	Spearman Rho, r'
Significance Tests		
2 ind. samples	t for ind. groups	Mann-Whitney U
2 related samples	paried t	Wilcoxon matched-pairs signed rank
More than 2 ind. samples	ANOVA	Kruskal-Wallis
More than 2 related samples	Repeated measures ANOVA	Friedman
Conclusions	Back to population	Only for sample

*See references 13, 18, 32.

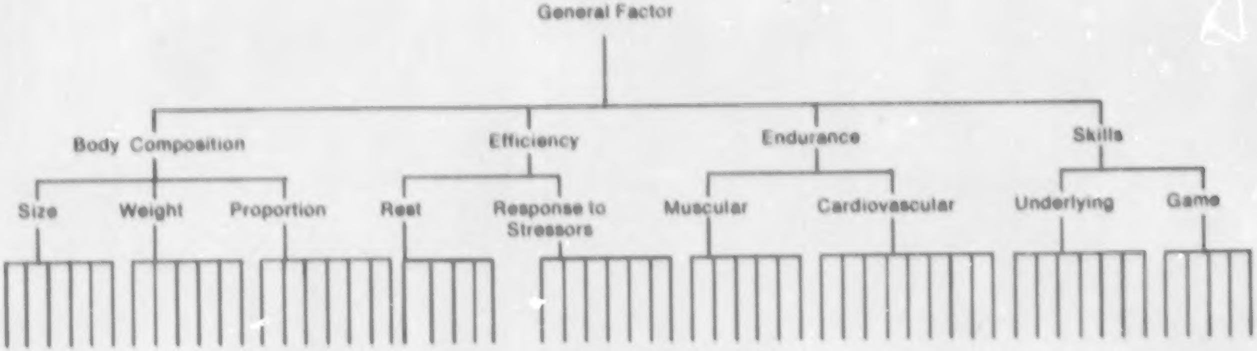
**See reference 30.

expected to fully explain a physical fitness component such as cardiovascular function, motor fitness, etc. For example, improvement in cardiovascular function can be explained by the following tests: max VO_2, resting heart rate and blood pressure, heart rate response to a standard work task, electrocardiography, mitrochondria quality and quantity, pulse wave, etc. The type and number of variables used will depend upon the availability of laboratory equipment and facilities, number of subjects and staff, time, etc. In an attempt to reduce the number or type of dependent variables used, various multi-variate procedures have been recommended. It is important to reduce the number of variables in those cases where unnecessary duplication is present; however, **independent tests** (or factors) **should not be combined simply to reduce the number of analyses.** One way to reduce the number of dependent variables is to use some correlational technique (such as, factor analysis) on the dependent variables on the pre-test. A test, or combination of tests, for each independent factor can then be utilized in the statistical analyses.

FITNESS—MULTI-FACTORED CONCEPT

Physical fitness has been discussed, listed as an objective, tested, and studied as if it were one thing, even though physical fitness researchers have been pointing out for some time that fitness includes various components (8). Table 3 illustrates a hierarchical model with the many components, and many levels of each component that are included in physical fitness. The content of the model, although not casually selected, is less important than the concept illustrated by the model; namely, that physical fitness includes many levels of many relatively independent components. It is obvious that no one class, study, or research station can cover all components of physical fitness. The options appear to be to emphasize the large group factors with crude tests that do not divide each component into its more specific levels; or to emphasize one component in depth; or to join with several other research stations in an attempt to cover all components in depth. We favor the latter two avenues of approach. Regardless of which approach used, several relatively independent dependent variables would seem worthy of inclusion in studies dealing with physical fitness.

TABLE 3
MODEL FOR PHYSICAL PERFORMANCE AND FITNESS[14]


General Factor
Body Composition
Efficiency
Endurance
Skills
Size
Weight
Proportion
Rest
Response to Stressors
Muscular
Cardiovascular
Underlying
Game

Each Component is then divided into smaller factors

The smaller factors are subdivided into smaller factors

Finally, Specific Test Items for Specific parts of the body

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Value Orientations of American College Coaches Compared to Male College Students and Businessmen

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High School and collegiate sports have been a center of controversy in recent years, and athletic coaches have come under a great deal of criticism by persons within and outside the field of education. Scott,[1] [2] one of the most outspoken critics of athletic coaches, has suggested that many of the problems in sports are attributable to the behavior of coaches. He has indicated that the value orientations of coaches are so conservative as to be almost aberrant, and that these values are so incongruous with those held by their athletes that they produce a great deal of frustration and conflict between coaches and athletes. Ogilvie, another frequent critic of athletic coaches, also believes that coaches are conservatives in value orientation. He has said: "Traditionally, you're going to find in the coaching profession men who are socially and politically conservative."[3] John Underwood, in a series appearing in **Sports Illustrated** on the coaches' dilemma entitled "The Desperate Coach," said ". . . the student activists . . . regard the coach as a neofascistic racist."[4] Even some coaches view their colleagues as possessing extremely conservative values. Dr. David Nelson, athletic director at the University of Delaware and formerly the head football coach there, said: "Having been a coach . . . I know that most of us are almost Harding Republicans and three degrees to the right of Ghengis Khan."[5]

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[1] Jack Scott, **Athletics for Athletes** (Hayward, California: Quality Printing Service, 1969).
[2] Jack Scott, **The Athletic Revolution** (New York: The Free Press, 1971).

Although various persons have recently claimed that athletic coaches are out-of-step with the current times because they are much more conservative than other groups, no systematic research has been reported to support these assertions. The purpose of this study was to examine in an exploratory manner the values held by college athletic coaches and compare them with values which have been reported for college students and businessmen. Specifically, the purpose of the study was to determine:

1) What political, social, educational, economic, and personal-moral values are held by college football coaches, college track coaches, and college basketball coaches?
2) Do the values of the various coaching groups differ significantly from values held by college students?
3) Do the values of the various coaching groups differ significantly from values held by businessmen?

Most people would agree that values lie at the core of life and human behavior, and the concept "value" provides a focus for study in a variety of human endeavors, from theology to education. Everyone of the disciplines which deal with the behavioral sciences employ this word, but with a great deal of diverse meanings.

For the purposes of this study, a value is considered as one's concept of an ideal relationship (or state of affairs), which he uses to assess the "goodness" or "badness", the "rightness" or "wrongness," of actual relationships which he observes or contemplates (Scott[6]). Furthermore, values refer to personal and social ideals, beliefs, or standards which may be used to evaluate and regulate ones own or others behavior. These involve ideals or beliefs about what is good, right, desirable, or true. Kluckhohn has stated: "A value is a conception, explicit or implicit distinctive of an individual or characteristic of a group, of the desirable which influences the selection from available modes, means, and ends of action."[7]

It is assumed that values form the basis for behavior, but the possibility of inconsistency between the values held by an individual and the behavior of that individual is also recognized. Morris said: "As abstract possibilities, one can imagine an extreme case where every conceived value issued into an operative value and another extreme case where no conceived value influenced the system of operative values. But human beings, seldom if ever, find themselves at either extreme: some interaction and some incompatibility between conceived and operative values is the common state."[8]

Value orientations are frequently conceptualized as being on a conservative-liberal continuum. Conservatism refers to a set of values which give high priority on loyalty to tradition, respect and obedience to established authority, normative standards of conduct and strong religious commitment. Liberalism refers to a set of values which stress social change, equality in political, social, and economic affairs. Value orientations which lie between these two extremes are considered to be moderate.

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[3] Bruce Ogilvie. Quoted from Jares, J. "We Have a Neurotic in the Backfield Doctor." **Sports Illustrated**, (Vol. 34 (January 18, 1971), p. 33.

[4] John Underwood, "The Desperate Coach." **Sports Illustrated**, Vol. 31 (August 25, 1969), p. 66.

[5] David Nelson, Quoted in **The Oregonian**, (December 28, 1970), p. 1 Sports Section.

[6] William A. Scott, **Values and Organizations**, (Chicago: Rand McNally, 1965) p. 3.

[7] Clyde Kluckhohn, "Values and Value Orientations in the Theory of Action," in Talcott Parsons and E. A. Shils eds. **Toward a General Theory of Action**. (Cambridge Harvard University Press, 1951) p. 389.

[8] Charles Morris, **Varieties of Human Value**. (Chicago: University of Chicago Press, 1956).

Research on human values has been conducted for many years. Indeed the social psychology literature and the sociology literature is replete with studies about human values. However, very little research has been done to determine the values held by athletic coaches.

Numerous studies have been done to determine the values held by college students, using several different instruments to measure the extent to which students hold certain values. In the 1930's Vetter[9] and Nelson[10] conducted studies to determine conservatism-liberalism among college students at that time. Jacob[11] in 1957 reviewed the extensive data from related research on college student values dating back to the 1920's. More recently Roscoe,[12] Teglovic,[13] Ritter,[14] Thayer,[15] Zehv,[16] and Elliott[17] have conducted studies on the values of college students using the **Polyphasic Values Inventory**.

Studies dealing with the values of educators have not been numerous, but Cox,[18] Norwalk-Polasky,[19] and White,[20] have recently conducted studies concerned with the relationship between faculty and students' values. McAllister[21] compared the values of several groups who are affiliated with education (school board members, school administrators, education professors, secondary school teachers, and counselors.)

Formal research on the values of businessmen is not extensive. Clark[22] and Walter[23] studied the ethical standards and values orientations of selected groups of businessmen. White[24] and Elliott[25] compared the values of businessmen with values of college students and/or other adult groups.

METHOD

Subjects. The college athletic coaches were randomly selected from the 1970-71 Official Collegiate Guides for Football, Basketball, and Track which are published by the National Collegiate Athletic Bureau. One hundred and ten coaches were selected from each of the Guides. Data reported by Teglovic[26] about male college student values and data reported by Elliott[27] about values held by businessmen were used in comparing the values held by these groups with the values held by college athletic coaches.

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[24] White, **op. cit.**, 1967.

[25] Elliott, **op. cit.**, 1969.

[26] Teglovic, **op. cit.**, 1968.

Teglovic reported that college students who took part in his study of American college student values were selected this way:

> "Figures published by the United States Office of Education were used in an analysis of the American college student population to determine the percentage of students enrolled in schools of various locations, affiliations, and sizes. The percentage figures were used in selecting the institutions used in this study . . . . After the selection of the participating institutions, student directories were obtained from their research bureau, student personnel office, publications office, or college bookstore. A random sample . . . was selected from each student directory."[28]

Teglovic reported a 68.31 percent total response of the 5,863 students sampled. Elliott reported that businessmen were selected in this way:

> "Members of the Junior Chamber of Commerce in one state from each of the five National Business Education Association geographical regions served as the sample of businessmen. State membership rosters were obtained from the national office of the Junior Chamber of Commerce in Tulsa, Oklahoma . . . . These membership rosters provided a systematic random sample from each of the five states, in which every name was selected . . . ."[29]

Elliott reported the following sample sizes in each of the five states:

Illinois	257
Kansas	158
Pennsylvania	266
Washington	100
West Virginia	50

Elliott reported a 57.6 percent total response of the 831 businessmen sampled.

Instrument. The **Polyphasic Values Inventory** (PVI) developed by Roscoe[30] was used to measure the values of college athletic coaches. This instrument was used by other investigators to measure the values of the other groups (college students and businessmen) with which the athletic coaches' values were compared. The PVI assesses value commitments using twenty multiple-choice items with the responses organized on a conservative-liberal continuum. The items cover selected philosophical, political, economic, educational, social, personal-moral, and religious dimensions of value difference. All of the items require the respondent to make value judgements rather than judgements of fact. Each item is treated as a separate piece of information, thus the respondent does not receive a total score. It was originally designed to be used with college students, but subsequent research has shown it to be applicable with adult populations.

Based upon his research with the PVI, Roscoe[31 32 33] reported that it had discriminant validity, content validity, and reliability.

Procedures. The PVI and a self-addressed envelope were sent to all of the coaches who had been selected. A letter accompanied the PVI to encourage the coaches to complete and return the inventory. After several weeks, follow-up letters were sent to the coaches who had not returned the PVI; a second follow-up letter was sent to those who had still not responded. The initial letter and follow-ups yielded the following completed and correctly marked PVI's: College football 93, (84%); college track 73, (67%); college basketball 80, (73%).

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[27] Elliott, **op. cit.**, 1969.

[28] Teglovic, **op. cit.**, pp. 23, 25.

[29] Elliott, **op. cit.**, 30-31.

[30] Roscoe, **op. cit.**, 1965.

[31] **Ibid.**

[32] John T. Roscoe, "Report of First Research With the Polyphasic Value Inventory," **Journal of Research Services**, Vol. 1 (No. 1) pp. 3-12, 1965.

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TABLE I
VALUE ORIENTATIONS OF COLLEGE ATHLETIC COACHES COMPARED TO COLLEGE STUDENTS

PVI Items	Chi-Square Goodness-of-Fit Values			
	College Students and Football Coaches	College Students and Track Coaches	College Students and Basketball Coaches	College Students and All Coaches Combined
Values Regarding the Nature of Science	6.56	7.25	12.24	17.88 C
Values Regarding the Right-to-Vote	43.09a L	6.13	20.23a L	54.56a L
Values Regarding the Treatment of Communists	12.65	4.20	4.66	10.93
Values Regarding the Military Action	7.39	14.42a L	7.94	27.10a L
Values Regarding the International Relations	5.85	6.97	13.05	23.09 L
Values Regarding Private Enterprise	3.41	8.89	7.47	7.39
Values Regarding Labor Unions	9.50	8.64	7.77	17.79 C
Values Regarding Citizenship Education	35.26a C	9.42	22.59 C	60.41a C
Values Regarding the Nation's Schools	24.02a C	4.76	3.42	23.01a C
Values Regarding Academic Freedom	88.46a C	57.15a C	65.76a C	208.52a C
Values Regarding the Equality of Man	8.70	3.82	4.84	13.87a
Values Regarding Race Relations	1.33	4.88	5.32	7.25
Values Regarding Treatment of Criminals	4.99	3.90	8.00	14.32a C
Values Regarding Final Authority for Ethical Conduct	32.42a C	15.91a C	15.32a C	54.91a C
Values Regarding Cheating on Tests	11.16	14.72a C	8.67	31.97a C

Values Regarding Sexual Behavior	31.27a C	22.12a C	30.40a C	82.61a C
Values Regarding the Use of Alcohol	16.93a C	19.89a C	19.23a C	48.88a C
Values Regarding the Nature of God	38.25a C	13.62a C	16.32a C	62.71a C
Values Regarding the Bible	17.21a C	2.68	18.64a C	31.41a C
Values Regarding the Responsibility of Man for His Deeds	15.12a C	8.11	20.15a C	35.22a C

aSignificant at 0.01 level with 4 degrees of freedom
C—Indicates that the coaches are more conservative
L—Indicates that the coaches are more liberal

TABLE 2
VALUE ORIENTATIONS OF COLLEGE ATHLETIC COACHES COMPARED TO BUSINESSMEN

PVI Items	Chi-Square Goodness-of-Fit Values			
	Businessmen and Football Coaches	Businessmen and Track Coaches	Businessmen and Basketball Coaches	Businessmen and All Coaches Combined
Values Regarding the Nature of Science	2.38	6.42	10.49	12.29
Values Regarding the Right-to-Vote	13.35a L	4.70	5.77	8.20
Values Regarding the Treatment of Communists	16.50a L	45.31a L	29.44a L	70.12a L
Values Regarding the Military Action	4.98	11.02	4.27	17.23a L
Values Regarding the International Relations	14.77a L	9.19	9.65	29.93a L
Values Regarding Private Enterprise	10.70c L	3.22	19.65c L	25.02c L
Values Regarding Labor Unions	5.09	6.07	7.09	15.45c C
Values Regarding Citizenship Education	24.11b L	6.31	7.69	29.34b L
Values Regarding the Nation's Schools	32.32a L	26.76a L	35.71a L	78.83a L
Values Regarding Academic Freedom	45.21a L	25.30a L	46.29a L	114.01a L
Values Regarding the Equality of Man	6.84	2.63	1.81	6.89
Values Regarding Race Relations	20.76a L	23.93a L	23.94a L	65.32a L
Values Regarding Treatment of Criminals	17.27b L	10.64	7.82	33.05b L
Values Regarding Final Authority for Ethical Conduct	4.34	9.36	14.03a L	22.01a L

Values Regarding Cheating on Tests	2.36	1.11	5.85	7.19
Values Regarding Sexual Behavior	8.85	6.08	9.07	22.53a L
Values Regarding the Use of Alcohol	60.15a C	51.16a C	63.92a C	169.39a C
Values Regarding the Nature of God	7.40	1.60	4.97	7.90
Values Regarding the Bible	5.45	1.86	3.17	5.07
Values Regarding the Responsibility of Man for His Deeds	8.23	8.46	3.72	13.90a L

aSignificant at .01 level with 4 degrees of freedom.
bSignificant at .01 level with 3 degrees of freedom.
cSignificant at .01 level with 2 degrees of freedom.
C—Indicates that the coaches are more conservative.
L—Indicates that the coaches are more liberal.

Coaches responses to the PVI were coded and computer cards for the respondents were punched. Data from Teglovic's[34] and Elliott's[35] research were added to the coaches' data. The data were processed by the IBM 360 model 30 computer at the University of Northern Colorado.

Analyses of the data were performed through the use of chi-square test of goodness-of-fit to determine whether coaches from each sport group were distributed in a fashion significantly different from the normative distributions.

RESULTS AND DISCUSSION

Each PVI item was treated as a separate source of information, thus no total score was given the respondents. Each item of the PVI has five responses which are arranged on a conservative to liberal spectrum. The distribution of responses were recorded in terms of the number and percentage of respondents in each sub-sample choosing each response for each item in the inventory. The data were organized into bivariate frequency tables for the purpose of comparing PVI responses to the other variables. There were a few respondents who gave no response to an item or whose response was uninterpretable, but these constituted such a small proportion (less than 0.05 percent) of the total number of responses that they are not presented in the tables.*

The chi-square test of goodness-of-fit was used to determine whether coaches from each group were distributed in a fashion significantly different from the normative distribution. The .01 level of significance was selected for testing the null hypothesis in all statistical analyses in this study. In cases where more than 20 percent of the expected frequencies in the cells of a group comparison were less than five the cells were collapsed. The degrees of freedom were changed accordingly and this is indicated in the table when significant differences occur. (See Tables 1 and 2).

There were 80 chi-square tests of significance made to test the null hypothesis of no differences between the values of various college athletic coaches groups and male college students. Significant differences were found at the .01 level of confidence in 43 of these comparison of coaches and college students.

In comparing the value orientation of college football coaches with college students, the null hypothesis of no difference was rejected on 10 of the twenty PVI items. On 9 of these items the football coaches displayed a more conservative value orientation than the college students. The one item on which football coaches expressed more liberal tendencies was on the question of the right-to-vote. Football coaches tended to be more conservative in value orientations to issues of educational approaches to teaching citizenship, educational methodology, academic freedom, authority for determining ethical conduct, sexual behavior, use of alcohol, the nature of God, the Bible, and man's responsibility for his actions.

In comparing the value orientation of college track coaches with college students, the null hypothesis of no difference was rejected on 10 of the twenty PVI PVI items. On 6 of these items the track coaches expressed a more conservative position than the college students. These were issues about academic freedom, authority for determining ethical conduct, cheating, sexual behavior, use of alcohol, and the nature of God. The one item on which track coaches expressed more liberal tendencies was on the question of circumstances under which our country should take military action against another country.

In comparing the value orientation of college basketball coaches with college students, the null hypothesis of no difference was rejected on 9 of the twenty PVI items. On 8 of these items the basketball coaches expressed a more conservative viewpoint than the college students. Like football coaches, the only item on which basketball coaches expressed greater liberal tendencies was on the question of the right-to-vote. Basketball coaches expressed more conservative values on educational approaches to teaching citizenship, academic freedom, final authority for determining ethical conduct, sexual behavior, use of alcohol, the nature of God, the Bible, and man's responsibility for his actions.

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[34] Teglovic, op. cit., 1968.

[35] Elliott, op. cit., 1969.

* Interested readers may write to the author for a full set of tables.

In comparing the value orientations of all the coaching groups combined with college students, the null hypothesis of no difference was rejected on 17 of the twenty PVI items. On 14 of these items the total coaches expressed a more conservative orientation than the college students. These were: the purpose of science, labor unions, educational approaches to teaching citizenship, educational methodology, academic freedom, equality of men, criminal punishment, authority for determining ethical conduct, cheating, sexual behavior, use of alcohol, the nature of God, the Bible, and man's responsibility for his actions. As a total group, the coaches expressed greater liberalism on only 3 items—those dealing the right-to-vote, justification for military actions, and governmental policy in international affairs.

The total response profile of the male college group can be characterized as moderate, although the students expressed some extreme liberal and conservative tendencies on certain topics. The total response profile of the college coaches showed them to possess moderate-conservative values, according to the responses they gave to the twenty PVI items. Although conservatism is not extreme among coaches, it is more pronounced than it is among college students.

The cultural revolution in American society has penetrated into all spheres of American life including sports. Organized sports have been a center of controversy in recent years, and athletic coaches have come under considerable criticism. Much of this criticism has centered around allegations that coaches possess value orientations which are too traditional, dogmatic, and conservative for current American life styles, especially those relating to the younger generation. It has been claimed that conflicts over values have been responsible for the struggles which have taken place in recent years between coaches, their athletes, and other student populations. Unfortunately athletic coaches' value orientations have not been investigated, so it was the purpose of this study to ascertain their value orientations and compare them with those of male college students and businessmen.

It is commonly believed that college students possess the most liberal value orientations of any group in the population, and this belief has been reinforced in recent years as a result of student activism—even radicalism—on college and university campuses throughout the country. However, research on college student values through several generations of students does not support this notion. Jacob in his **Changing Values in College** reviewed the research on this subject up to just over a decade ago and said that although students tend to take on the prevalent norms of their own colleges and become less dogmatic, less prejudiced, and more critical-minded, they tend not to become more liberal, except superficially in that they take on "a random collection of opinions in vogue during a particular generation." Jacob concluded that "college has a socializing rather than a liberalizing impact on values. It softens an individual's extremist views . . . increases the tolerance potential. It strengthens respect for the prevailing social order . . . . The weight of evidence indicates that actually very little change occurs during college in the essential standards by which students govern their lives. The values with which they arrive, and which are integral elements of their personality, are still there when most students leave."[36] Williams, writing about values and education in the United States, stated that in the area of values "it is certainly true that students are not radical, not rebels against their parents or their peers."[37]

In a more recent national study of college student values, Teglovic's findings corroborate those of previous investigators. Teglovic found that, although student values varied from one institution to another and although students expressed strongly liberal tendencies on certain issues, overall college students hold rather moderate value orientations.[38]

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[36] Jacob, **op. cit.**, p. 53.

[37] Robin M. Williams, Jr. "Values and Modern Education in the United States," **In Values in America**, ed. Donald N. Barrett (South Bend: University of Notre Dame Press, 1961) p. 77.

Several studies suggest that coaches might be expected to possess greater conservatism than college students (Cox;[39] Norwalk-Polsky;[40] White;[41] McAllister;[42] Lipset and Ladd;[43] Campbell and Cooper;[44] Spaulding and Turner;[45] and the findings of these studies suggest that this conservatism is probably related to age and professional role.

The findings of this study support the notion that coaches possess greater conservatism than college students. But an item by item analysis of the response choices certainly does not support the assertions which have been made recently that coaches are extremely conservative—even reactionary—in value orientation.

However, the findings of this study do suggest that there is one set of value orientations which coaches possess that is a potential source of conflict between them and their young athletes. This set of value orientations might be classified as beliefs about "authority structure." Authority is an established right to make decisions and order the actions of others. All forms of social organization provide for orderly allocation of authority, i.e., an authority structure. As a result, authority is usually used in an orderly way to insure performance of tasks and to facilitate attainment of collective goals.

The coaches responses to items No. 8 and No. 14 indicate that they place higher value on obedience to authority and standards of good conduct which have been established by religious or societal norms than do college students. Furthermore, several other items on which coaches expressed greater conservatism than college students suggests that they manifest greater support for "authority structure" than students. The PVI was not designed to measure authoritarianism as such (Shils[46] and Rokeach[47] have pointed out that authoritarians may be found on either end of the conservative-liberal continuum), but response choices on certain items enables respondents to indicate their beliefs about "authority structure."

This high value for authority structure expressed by coaches will be evident in expectancies that their position culturally accords them the right to direct the actions of their athletes and that the athletes under their jurisdiction agree to accept as the premises of their behavior orders and instructions given to them by the coach. Recent upheavels in collegiate sports and the writings of Scott,[48] and Underwood,[49] and others suggest that reliance upon authoritarian values by coaches is one of the most critical sources of conflict between coaches and athletes. They insist that the authoritarian nature of American sports is producing what Mills[50] calls an "insurgent-coercive" relationship between coaches and athletes. In an "insurgent-coercive" relationship, each party perceives the other as an aggressor. To the members, the leader (or authority figure) is powerful and dangerously oriented toward them; in turn, the leader may imagine that the group's desire is to unseat, or at least weaken, him. The result is that both parties share a mutual suspicion of the other. This condition does seem to exist in a substantive part of collegiate sports today.

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[38] Teglovic, **op. cit.**, 1968.

[39] Cox, **op. cit.**, 1968.

[40] Norwalk-Polsky, **op. cit.**, 1968.

[41] White, **op. cit.**, 1967.

[42] McAllister, **op. cit.**, 1967.

[43] Seymour M. Lipset and Everett C. Ladd, Jr. " and what Professors Think," **Psychology Today**, Vol. 4 (November, 1970), pp. 49-51.

[44] A. Campbell and H.C. Cooper, **Group Differences in Attitudes and Votes** (Survey Research Center, Institute of Social Research, University of Michigan, 1956) pp. 28-30.

[45] C.B. Spaulding and H.A. Turner, "Political Orientation and Field Specialization Among College Professors," **Sociology of Education**, Vol. 41, pp. 247-262, 1968.

[46] E.A. Shils, "Authoritarianism: "Right" and "Left," **Studies in the Scope and Method of The Authoritarian Personality**," (Eds.), Richard Christie and Marie Jahoda, (Glencoe, Illinois: The Free Press, 1954), pp. 24-49.

[47] Milton Rokeach, **The Open and Closed Mind**, (New York: Basic Books, 1960).

[48] Scott, **The Athletic Revolution**, **op. cit.**, pp. 35-49, 187-202.

[49] Underwood, **op. cit.**, 1969.

[50] Theodore M. Mills, **The Sociology of Small Groups**, (Englewood Cliffs, New Jersey: Prentice-Hall, Inc., 1967) pp. 123-124.

The value orientations toward authority structure which were expressed by coaches do not seem to be occupation related, as some writers have intimated, for the businessmen respondents expressed even stronger support for this set of values than coaches. The findings of this and other studies of value orientations suggest that orientations towards authority structure are basically related to generational factors rather than occupational.

Do athletic coaches possess values which are different than age-peers in other occupations? Several studies have shown businessmen to possess moderately-conservative values (Clark;[51] Walter;[52] Elliott;[53]). Except for some journalistic accusations that coaches are extremely conservative, there was no **a priori** reason to expect that coaches hold value orientations which are different than career businessmen.

There were 80 chi-square tests of significance made to test the null hypothesis of no difference between the values of various college athletic groups and businessmen. Significant differences were found at the .01 level of confidence in 36 of the comparison of coaches and businessmen.

In comparing the value orientation of college football coaches with businessmen, the null hypothesis of no difference was rejected on 10 of the twenty PVI items. On 9 of these items the football coaches displayed a more liberal viewpoint. These items dealt with values regarding right-to-vote, treatment of communists, international relations, relationship between government and business, educational approaches to teaching citizenship, educational methodology, academic freedom, racial relations, and treatment of criminals. The only item on which coaches were more conservative than businessmen was on the use of alcoholic beverages; football coaches tended to value abstinance or moderation more than businessmen.

In comparing the values of college track coaches with businessmen, the null hypothesis of no difference was rejected on only 5 of the twenty PVI items. On 4 of the items the track coaches expressed a more liberal position. These were: treatment of communists, educational methodology, academic freedom, and racial relations. Again, the only item on which track coaches were more conservative was on the use of alcoholic beverages.

In comparing the values of college basketball coaches with businessmen, the null hypothesis of no difference was rejected on 7 of the twenty PVI items. On 6 of these items the basketball coaches expressed a more liberal position. Basketball coaches hold more liberal views regarding international relations, relationship between government and business, educational methodology, academic freedom, racial relations, and authority for determining ethical conduct. As with the other two coaching groups, the only item on which basketball coaches were more conservative was on the use of alcoholic beverages.

In comparing the values of all of the coaching groups combined with businessmen, the null hypothesis of no difference was rejected on 14 of the twenty PVI items. On 12 of these items the coaches expressed a more liberal viewpoint. The all-coaches group showed greater liberal tendencies on treatment of communists, justification for military action, international relations, relationship between government and business, educational approaches to teaching citizenship, educational methodology, academic freedom, racial relations, treatment of criminals, authority for determining ethical conduct, sexual relations, and man's responsibility for his actions. The coaches showed greater conservativism on questions regarding viewpoint about labor unions, and the use of alcoholic beverages.

The data on the values of businessmen which were used in this study were reported by Elliott and he stated: "Businessmen . . . appear to be moderately conservative in their value orientations."[54] The total response profile of the various college coaching groups showed them to be moderately-conservative also, but certainly tending less toward the conservative end of the continuum than businessmen. Overall, this study showed that coaches hold more liberal value orientations than businessmen from ten occupational categories.

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[51] Clark, **op. cit.**, 1965

[52] Walter, **op. cit.**, 1964

[53] Elliott, **op. cit.**, 1969

[54] **Ibid.**, p. 117

Several critics of coaches have directly or indirectly accused them of racism. For example, Scott has said that "there is widespread racism in the coaching ranks. . . . There are hundreds of racist coaches throughout the country . . . ."[55] Although individual acts of racism have undoubtedly occurred, one of the most significant finding of this study shows that coaches' hold a more liberal value orientation toward racial relations than businessmen and their value orientations are the same as college students. This is not to suggest that all coaches are equalitarians with regard to racial values, but it does suggest that stereotyping coaches as racists, as some have done, is as irrational as stereotyping the members of any large group. As a group, coaches appear to be seeking racial understanding, goodwill, and equality to a greater extent than their occupational peers with which they were compared in this study.

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[55] Scott, **op. cit.**, 1971, p. 134.

The Student As Sport Consumer

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INTRODUCTION

An indication of the technocratization and commercialization of western industrialized man is found in the adoption of terms, semantically divorced from their traditional usages, to specify unequivocal conceptualizations in the exchange of messages. This process of the removal of ambiguity from current language, following the example of science, suggests a refinement in a communication which mitigates for clarity of comprehension. An exception to this logical-positivist direction is found in the term "consumer." However, the extension of interpretation which is accorded this term is also, paradoxically, a clarification which finds its latest application in the most recent thinking of Marshall McCluhan. To confuse the issue further, when McCluhan speaks of the "user," he is speaking of the consumer.

If then, a definitional exercise appears spurious, some attempt at meaning must not be eluded. Whereas, formerly, consumption implied the ingestion, assimilation or transformation of material goods and commodities, present-day parlance has accustomed society to also associate the concept of consumption with the use of services. Thus, while it may not be commonplace to hear reference to the "consumption of medical services," there is an implicit understanding of a demand placed upon a complex of resources, personnel and goods by a particular sector of society. Put into this kind of "cost-accounting" imagery, and attaching to such services the notion of an "industry" supplying the demands of society, the consumption of "services" can be seen on the basis of its historical derivation. Indeed, **Consumer Reports** has served a necessary function in educating people to the derived duality of meaning attaching to consumption.

It is, of course, still a major step which must be taken for the acceptance of ideas which impute sport with a "service" role or function. To this end, sport must conceptually emanate from, be the product of, so to speak, an industry. The origins of this avenue of thought might be traced to Denney's "styles of leisure consumption," which do not appear to fit into the category either of commodity or of service. Yet, this notion of the "consumption of entertainment"[1] provides a dimension of interpretation which might be heralded as the conceptual forerunner to Toffler's "culture consumption."[2]

Operating as a conceptual link between Denney and Toffler, Hart emphasizes the wide diversity of choices which confront the consumer when he considers the use of his leisure time. Hart states convincingly:

> One does not ordinarily think of baseball players competing with travel agencies and magazine publishers, but they do . . . (7:54)

Toffler offers the explicandum that the "culture consumer does not necessarily use up that which he consumes," nor is he passive in his social interactions with the art-works he consumes.[3] The "passivity" concept might be useful for the sport sociologist to consider in any future exploration of the spectator phenomenon.

The more recent elaborations of McCluhan suggest that presence **at** a game or sport event constitutes evidence of the content of the sport event primarily consisting of the "corporate user." (This presents an interesting departure for those students of sport who are still wrestling with the meaning or definition of sport.) Where the sport event is a larger spectacle with many spectators in attendance, consideration must be given to the role that the user fulfills. McCluhan is categorical in stating that "the audience or the public is the user of all sports and thus their ultimate content."[4] Patently, this is not a contradiction of Toffler, it is an elaborate extension.

McCluhan's approach to phenomenological explanation of contemporary meanings of consumption holds as well for Toffler's "culture consumption" as it serves to account for "sport consumption." Indeed, it is not foreign to see the term "consumer" used with specific reference to the more popularly recognized term "spectator" when describing those who attend sports events. Clarence Campbell, President of the National Hockey League, is quoted saying that "in Canada there are no places outside Toronto and Montreal that have the **consumer** spending to support an NHL organization," (itlaics added),[5] and again, Richard Mandell, speaking of boxing in the U.S.A. in the early thirties, states:

> The industry and its consumers, of course, were rotten with anti-Negro prejudice . . . (9:115)

To elaborate, Noll and Okner, in their "Statement Before the Subcommittee on Antitrust and Monopoly Legislation of the Senate Judiciary Committee on S.2373; The Basketball Merger Bill," draw conceptual parallels between sport leagues and utility industries in the provision of services to a community. Interestingly enough, one of their parallels focuses upon the consumer, or spectator, getting value for his money. Davis, in his study of major league baseball, shows that the major league clubs as early as 1909 constituted a cartel which was "originally designed to minimize competition in both the product and labor markets" (earnings from games and competition for playing talent).[6]

Sport Consumption

In the present study, the source of the term "consumption," as it is used in relation to sport, originates in the thinking of Kenyon (8). The paradigm of

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[1] Reuel Denney, The Astonished Muse, cago; University of Chicago Press, 1957.

[2] Alvin Toffler, **The Culture Consumers: Art and Affluence in America**, Baltimore, Maryland; Penquin Books, 1965.

[3] " . . . a culture consumer is a person who listens to classical music, or attends concerts, plays operas, dance recitals or art films, or visits museums or galleries, or whose reading reflects an interest in the arts." **Ibid.** p. 35

[4] Marshall McLuhan, "The User is the Content." **Sunday Magazine: St. Paul Pioneer Press and Dispatch**, May 23, 1971.

[5] Nick Auf der Maur, "The NHL Power Play," **Last Post**, April-May, 1971, pp. 12-15.

[6] In 1946, according to Davis, " . . . for the first time, the idea of management union negotiations became legitimized, the club owners admitted the possibility of collective bargaining, and the players received direct benefits in terms of owner contributions to the Player Pension Fund," (page 16). The notion of the industry of sport is thus strengthened. See also; Canes, Michael E. "Public Policy Towards Professional Team Sport," (Mimeographed, 1971).

TABLE 1
Proportionate Distribution of the Random
Sample of Undergraduates by Year
(in Percent)

Class	Random Sample		All Undergraduates	
	N	Percent	N	Percent
Freshmen	246	24.6	7,961	24.1
Sophomores	331	33.1	10,523	32.0
Juniors	166	16.6	5,884	17.9
Seniors	219	21.9	7,163	21.8
Adult Special	38	3.8	1,405	4.2
TOTALS	1,000	100.0	32,936	100.0

TABLE 2
Proportionate Distribution of the Random
Sample of Undergraduates by Sex
(in Percent)

	SEX				TOTALS	
	MALE		FEMALE			
	N	%	N	%	N	%
All Undergraduates	19,291	58.4	13,645	41.6	32,936	100.0
Random Sample	578	57.8	422	42.2	1,000	100.0

sport involvement which Kenyon introduced to sport sociologists at the C.I.C. Symposium on the Sociology of Sport, in 1968, categorized **secondary** involvement as referring to all other forms of involvement other than "actual participation in the game or sport as a player or contestant" (9:78). Hence, **secondary** involvement "refers to all other forms of participation, of which there are several, including participation via the **consumption** of sport and participation via the production of sport." (8:78) Sub-categories of consumer are threefold. In the first two instances, consumption can be **direct** and **indirect**; the former subcategory comprising spectators, i.e., actual game attendance or physical presence at the sport event; the latter comprising viewers, listeners, and readers, i.e., those who pay attention to sport events via the media. The third sub-category under direct consumption relates to those in coaching, instructing, managing, and team leading roles, and is sub-headed **leader**. The present research deals only with direct and indirect consumption.

In spite of Riesman's (1967) observation that college and university "football coaches do not as yet face a declining market," recent popular reports on declines in gate receipts at intercollegiate athletic events (**Sport, Sports Illustrated, Look, Minneapolis Tribune**) direct attention to the possible eventuality of the extinction of intercollegiate athletics at universities where the sport is dependent on revenue. Patterns of attendance, or direct consumption, by the student body are a significant factor in ticket sales (5).

Shifts in the pattern of direct consumption by students throughout the four years of college might be hypothesized as graduation approaches and career interests assume greater importance. Maturation processes associated

Table 3
Frequencies for Direct Consumption of Sport (Game Attendance by Year
(in Percent)

Frequency of Attendance	Freshmen	Sophomores	Juniors	Seniors
Often	26.6 (42)	17.8 (43)	15.7 (19)	20.4 (33)
Occasionally	48.1 (76)	50.0 (121)	49.6 (60)	54.8 (90)
Never	26.3 (40)	32.2 (78)	34.7 (42)	24.1 (39)
TOTAL N	100.0 (158)	100.0 (242)	100.0 (121)	100.0 (162)

with the latter mitigate against the need for "identification" (4), which suggests that the hypothesis that there is a significant decline in direct consumption of sports with each succeeding year of undergraduate study might be tested.

According to Harrold and Chapin (6), there are no significant sex differences in the purchase of tickets for intercollegiate athletic events by freshmen. It may be further hypothesized then that there are no sex differences in the decline of direct sports consumption with succeeding years of undergraduate study.

Acceptance of the above two hypotheses might prompt further postulation that with the decline of direct consumption of sports, there is a corresponding increase in indirect consumption, and that this will not be differentiated according to sex.

PROCEDURE

For the purpose of this research a questionnaire was composed which asked respondents to note the relative frequency with which they attended sport events, and with which they followed sport events via the various media of television, radio, and sport magazines.[7] This questionnaire was mailed out to a random sample of 1,000 undergraduates, selected from a total enrollment of 32,936 at a large urban state university. Responses were returned by 782 of the sample. Tables 1 and 2 present the proportionate numbers and percentages of the students, stratified by year, and by sex, in relation to the total enrollment.

RESULTS

Although 78.2% of the sample responded, the tables used for these results reflect response rates varying between 67.5% and 72.5%. These percentage rates of response were seen as being satisfactory for substantive conclusions to be drawn.

Results show that, far from there being a consistent increase in indirect consumption with a decrease in direct consumption of sport, an irregular pattern of sport consumption prevails relative to year and to mode of involvement. Differences do occur between direct and indirect consumption, but not in the directions predicted by the hypotheses. Furthermore, patterns of indirect consumption appear to be similar regardless of the medium.

As Table 3 shows, game attendance (direct consumption of sport) of those who attend **frequently** declines from the freshman to the junior year and resurges toward freshman levels of attendance in the senior year. This pattern is more

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[7] Relative frequencies of newspaper sports page readership were not included in the foregoing categories since they were dealt with as a separate entity. City newspaper sports page readership comprised 44.5% of all students, and 40% of all students, also read the sports page of the University newspaper.

TABLE 4
Frequencies for Direct Consumption of Sport (Game Attendance) by Year and by Sex (in Percent)

Frequency of Attendance	Freshmen		Sophomores		Juniors		Seniors	
	Males	Females	Males	Females	Males	Females	Males	Females
Often	27.9 (24)	25.4 (18)	24.0 (31)	10.7 (12)	19.0 (15)	9.8 (4)	21.7 (20)	19.1 (13)
Occasionally	50.0 (43)	45.1 (32)	48.8 (63)	51.8 (58)	49.4 (39)	48.8 (20)	55.4 (51)	54.4 (37)
Never	22.1 (19)	29.6 (21)	27.1 (35)	37.5 (42)	31.6 (25)	41.5 (17)	22.8 (21)	26.5 (18)
TOTAL N	100.0 (86)	100.0 (71)	100.0 (129)	100.0 (112)	100.0 (79)	100.0 (41)	100.0 (92)	100.0 (68)

TABLE 5
Frequencies for Indirect Consumption of Sport (Reading Sports Magazines) by Year (in Percent)

Frequency of Reading Sports Magazines	Freshmen	Sophomores	Juniors	Seniors
Often	9.0 (14)	14.5 (32)	7.1 (8)	11.1 (17)
Occasionally	42.9 (67)	35.1 (78)	37.2 (42)	37.9 (58)
Never	48.1 (75)	50.2 (111)	55.8 (63)	51.0 (78)
TOTAL N	100.0 (156)	100.0 (221)	100.0 (113)	100.0 (153)

TABLE 6
Frequencies for Indirect Consumption of Sport (Reading Sports Magazines) by Year and by Sex (in Percent)

Frequency of Reading Sport Magazines	Freshmen		Sophomores		Juniors		Seniors	
	Males	Females	Males	Females	Males	Females	Males	Females
Often	15.9 (14)	0.0 (0)	21.3 (26)	6.1 (6)	10.7 (8)	0.0 (0)	16.8 (15)	3.3 (2)
Occasionally	48.9 (43)	35.8 (24)	46.7 (57)	21.4 (21)	45.3 (34)	18.9 (7)	46.1 (41)	26.2 (16)
Never	35.2 (31)	64.2 (43)	32.0 (39)	72.4 (71)	44.0 (33)	81.1 (30)	37.1 (38)	70.5 (43)
TOTAL N	100.0 (88)	100.0 (67)	100.0 (122)	100.0 (98)	100.0 (75)	100.0 (37)	100.0 94	100.0 (61)

TABLE 7
Frequenci[illegible]or Indirect Consumption of Sport
(Lis[illegible] to Radio) by Year (in Percent)

Frequency of Listening to Radio	Freshmen	Sophomores	Juniors	Seniors
Often	21.3 (32)	21.3 (51)	12.9 (15)	15.8 (24)
Occasionally	38.0 (57)	41.4 (99)	47.4 (55)	40.1 (61)
Never	42.7 (31)	37.2 (89)	39.7 (49)	44.1 (67)
TOTAL N	100.0 (150)	100.0 (239)	100.0 (116)	100.0 (152)

dramatic for females than for males (Table 4). Table 3 also shows that there is little shift in game attendance for those who attend only **occasionally**, there being a marginal increase in the senior year over the previous three years. A more stable pattern of game attendance prevails for males than for females (Table 4).

Table 5 presents the data for 66.0% of the respondents, those who claim to read magazines of particular sports content (**Sport**, **Sports Illustrated**, **Golf Digest**, **Tennis World** and the like). Frequent readership increases markedly in the sophomore year, and this may be a short term reaction to the decline in frequent game attendance noted in Table 3. Nevertheless, a decline in readership occurs quite drastically in the junior year, only to regain and slightly surpass freshman levels of frequent readership in the senior year. Frequent readership of sport magazines appears to be uniquely a male preoccupation (except for a small percentage of female sophomore and senior readership—Table 6).

Among those students who read sports magazines **occasionally**, the greatest percentage is among freshmen. A modest decline in occasional readership occurs in the sophomore year, with only the slightest marginal increase through the senior year still remaining below freshman levels (Table 5). Where male occasional readership of sport magazines shows little fluctuation, as illustrated by Table 6, female readership shows dramatic shifts, declining from freshman to junior years, and showing a regain in readership interest in the senior year. All levels of occasional readership for females are lower than for males. These findings would appear to reflect cultural emphases found in the sport literature, that is, proportionately fewer sport magazines appealing directly to sport interests of females. Thus, magazines such as **Ski** or **Tennis World** would have proportionately greater female readership than, say **Sport** or **Sports Illustrated**, even though these latter often have articles purely of interest to females.

Sport consumption via listening to the radio does not appear to vary from freshman to sophomore years among those who listen frequently (Table 7), but, as in sport magazine readership, the lowest level of sport consumption is evident in the junior year, with a slight resurgence towards freshman levels in the senior year. Table 8 shows that this is true for both sexes, but that the decline in listenership in the junior year is more significant for females than for males.

The pattern of listening to sport broadcasts on the radio is somewhat different for those who listen **occasionally** (Table 7). Indeed, the trend from freshman to junior year is in the direction hypothesized, but senior year levels of listening decline again towards freshman levels. Among those who listen occasionally, the patterns of listenership fluctuate less dramatically for males than for females (Table 8).

A comparison of Tables 5 and 7 illustrates that in all cases, except **occasional** readership by freshmen, listening to the radio for sport consumption is more prevalent among typical undergraduates.

TABLE 8
Frequencies for Indirect Consumption of Sport
(Listening to Radio) by Year and by Sex (in Percent)

Frequency of Listening to Radio	Freshmen		Sophomores		Juniors		Seniors	
	Males	Females	Males	Females	Males	Females	Males	Females
Often	23.3 (20)	17.5 (11)	23.8 (31)	18.5 (20)	17.5 (14)	2.8 (1)	21.1 (19)	8.2 (5)
Occasionally	44.2 (38)	30.2 (19)	49.2 (64)	32.4 (35)	50.0 (40)	41.7 (15)	45.6 (41)	31.1 (19)
Never	32.6 (28)	52.4 (33)	26.9 (35)	49.1 (53)	32.5 (26)	55.6 (20)	33.3 (30)	60.7 (37)
TOTAL N	100.0 (86)	100.0 (63)	100.0 (130)	100.0 (108)	100.0 (80)	100.0 (36)	100.0 (90)	100.0 (61)

TABLE 9
Frequencies for Indirect Consumption of Sport
(Watching Television) by Year (in Percent)

Frequency of Watching Television	Freshmen	Sophomores	Juniors	Seniors
Often	27.9 (46)	32.2 (79)	23.8 (30)	31.7 (53)
Occasionally	54.5 (90)	44.1 (108)	58.7 (74)	49.1 (82)
Never	17.6 (29)	23.7 (58)	17.5 (22)	19.2 (32)
TOTAL N	100.0 (165)	100.0 (245)	100.0 (126)	100.0 (167)

Of the total response group, 72.4 percent watched sports on television. Table 9 shows that **frequent** viewing increases in the sophomore year, and this may also be a reaction to the decline in frequent game attendance (noted in Table 3). Once again, a severe decline in sport consumption (via viewing television) is seen in the junior year, followed by a substantial increase (as for readership—Table 5) in the senior year to a level slightly above freshman levels of viewing. However, unlike sport readership, sport viewing on television is not uniquely a male preoccupation (Table 10).

Among those students who watch sports on television **occasionally**, the greatest percentage is among juniors, as was true for listenership. Regarding sex differences, **occasional** watching of sport on television is more prevalent among females than among males. This consistent disparity, greater for females than for males, may, in fact, reflect anxieties about time spent viewing sport on television at the cost of hours spent more "profitably" on study; a comparison of Tables 4 and 10 would tend to support such a speculative postulation.

CONCLUSIONS

The hypothesis that direct consumption of sport declines with each succeeding year of undergraduate study was not supported, since seniors attend more sport events than either sophomores or juniors. This holds true for both sexes.

TABLE 10
Frequencies for Indirect Consumption of Sport
(Watching Television) by Year and by Sex (in Percent)

Frequency of Watching Television	Freshmen		Sophomores		Juniors		Seniors	
	Males	Females	Males	Females	Males	Females	Males	Females
Often	35.1	17.1	45.1	17.1	31.0	9.8	40.6	20.6
	(33)	(12)	(60)	(19)	(26)	(4)	(39)	(14)
Occasionally	54.3	55.7	39.1	50.5	57.1	61.0	46.9	50.0
	(51)	(39)	(52)	(56)	(48)	(25)	(45)	(34)
Never	10.6	27.1	15.8	32.4	11.9	29.3	12.5	29.4
	(10)	(19)	(21)	(36)	(10)	(12)	(12)	(20)
TOTAL	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
N	(94)	(70)	(133)	(111)	(84)	(41)	(96)	(68)

The hypothesis that "with the decline in direct consumption of sport, there is a corresponding increase in indirect consumption" was tested for sport readership, listening to sport broadcasts on the radio, and viewing sport on television. Irregular patterns of indirect sport consumption prevail both among the three media and between the sexes.

Concerning indirect consumption of sport, approximately 50% of all students regardless of year or sex, read some sport magazine either frequently or occasionally. For radio sport broadcasts, approximately 60% of all students listen frequently or occasionally; and sports viewing on television is indulged by approximately 80%, frequently and occasionally. When Glasser (4) speaks of "the ephemeral emphasis on the social status of various leisure activities" (p. 108), he may be speaking about the relative emphases of the media in the indirect consumption of sport.

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Multivariate Applications to Research in Administrative Theory

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A primary concern in the development and the advancement of new knowledge in administrative theory and practice is to create research designs which will permit the study of the organization as a dynamic function. The complexity of the problems attendant to this type of investigation requires that the researcher employ sophisticated designs and statistical techniques in order to ferret out in a hierarchical manner the factors which relate to the particular problem under investigation.

The general deficiency in administrative research in our field has been the lack of a theoretical orientation in the design and interpretation of research.[1] Although classically controlled experimentation is not possible in the study of administration, traditionally, because of the ease and convenience, **ex post facto** studies have dominated our research efforts.[2]

The techniques of multivariate analysis hereafter referred to as MANOVA, can be used "to determine how and to what extent the independent variables explain or predict the responses of the subject represented by the dependent variables."[3] Basic to the use of MANOVA is the establishment of an experimental design upon which the investigator shall base his analysis. Cattell has proposed six basic dimensions that should be considered in establishing an experimental design. These six factors: number of variables, manipulation, time relation, situational control, representativeness of variables and population sampling, "can yield sixty-four types or patterns of experimental design."[4] He also suggests that this type of "creative design" will allow the researcher greater latitude and will reduce accidental problems associated with misinterpretation of results.[5]

The major advantage of employing MANOVA is that many dependent variables can be studied simultaneously, provided these variables can be assumed to be in a multivariate normal distribution. However, multivariate analysis should not be conducted "unless there is good evidence that the variables are measuring the characteristics which they are supposed to measure and that the measurement is accurate."[6]

In general, multivariate analysis has been used in a randomized block design with the error term as the interaction of treatments with the blocks of the design. It should be noted that if the subclass numbers are disproportionate, as they often are in administrative research, the solution is referred to as a non-orthogonal analysis of variance. Because of the ever-present disproportionality of class sizes, the investigator must make an **a priori** decision as to which of the main effects is preferable.[7] It should also be pointed out that "investigators generally find it necessary to include more than one dependent variable in order to evaluate what they consider the salient objectives of the research."[8] In fact, much of the research which deals with physical education administration involves both multiple dependent and multiple independent variables which compounds the problem of being able to generalize the findings of these investigations. In order to test a multivariate problem, the investigator must test the goodness of fit of an n factor contingency table for the interaction of the main effects. Following this determination, and if the main effect additive model is accepted, the next step is to test the other main class effects. Once the multivariate analysis has been completed, the investigator should then determine the univariate F ratios for all variables associated with each hypothesis.

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[1] Marcia T. Spaeth, "An Analysis of Administrative Research in Physical Education and Athletics in Relation to a Research Paradigm." Unpublished doctoral dissertation, The University of Illinois, 1967.

[2] Gordon A. Olafson, "Administrative Research in Junior College Physical Education, Education and Athletics Applied to a Research Paradigm", unpublished paper, The University of Illinois, 1968.

[3] R. Darrell Bock, and Ernest A. Haggard, "The Use of Multivariate Analysis of Variance in Behavioral Research," **Handbook of Measurement and Assessment in Behavioral Sciences**, Dean K. Whitla, editor (Reading, Mass: Addison-Wesley Publishing Co. 1968) p. 100.

[4] Raymond B. Cattell, "The Principles of Experimental Design and Analysis in Relation to Theory Building", **Handbook of Multivariate Experimental Psychology**, Raymond B. Cattell, editor (Chicago: Rand McNally and Co., 1966) p. 28.

[5] **Ibid.**, p. 29.

[6] Keith Hope, **Methods of Multivariate Analysis**, (New York, Gordon and Breach Science Publishers, 1969), p. 10.

The use of discriminant function analysis further aids the researcher in determining differences, if any, among the treatment groups on any of the criteria.[9]

> .... it is used primarily as an aid in characterizing the differences between groups, rather than as a device for classifying subjects. The analysis determines the linear combination of variables most sensitive to departure from the null hypothesis.[10]

The foregoing synopsis will serve to briefly acquaint you with multivariate analysis and associated statistical methods which can be used to order the hierarchical effects of the dependent variables.

Models as a means of explaining theories have been used to aid the understanding of administrative theory and practice and as a guide to further research. The classical theory model as represented in figure 1 "describes the skeletal struc-

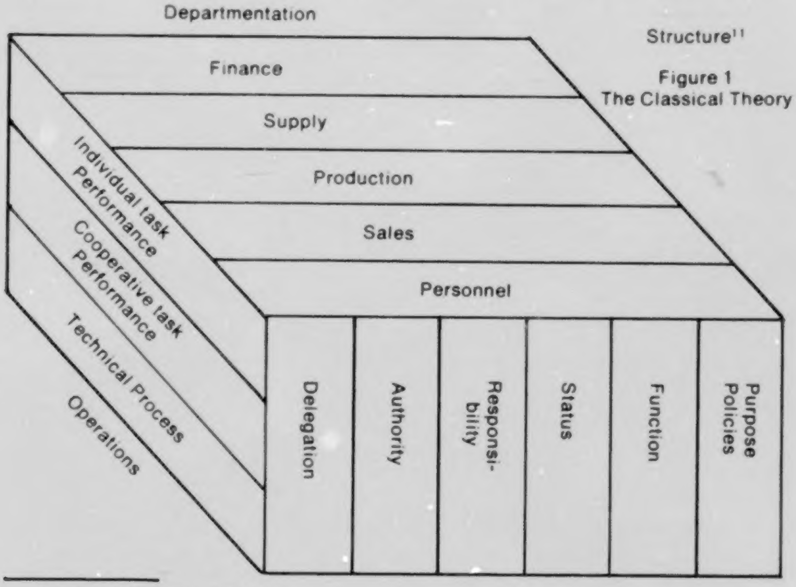

Figure 1
The Classical Theory

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[7] Bock and Haggard, p. 107-109.

[8] **Ibid.**, p. 101.

[9] Maurice M. Tatsuoka, and David V. Teideman, "Discriminant Analysis", **Review of Educational Research**, XXIV (December, 1954), 402-420.

[10] Bock and Haggard, p. 118.

[11] Ralph M. Stogdill, "Dimensions of Organization Theory", **Organizational Design and Research**, James D. Thompson, editor (Pittsburgh, Pennsylvania, University of Pittsburgh Press, 1967), p. 6.

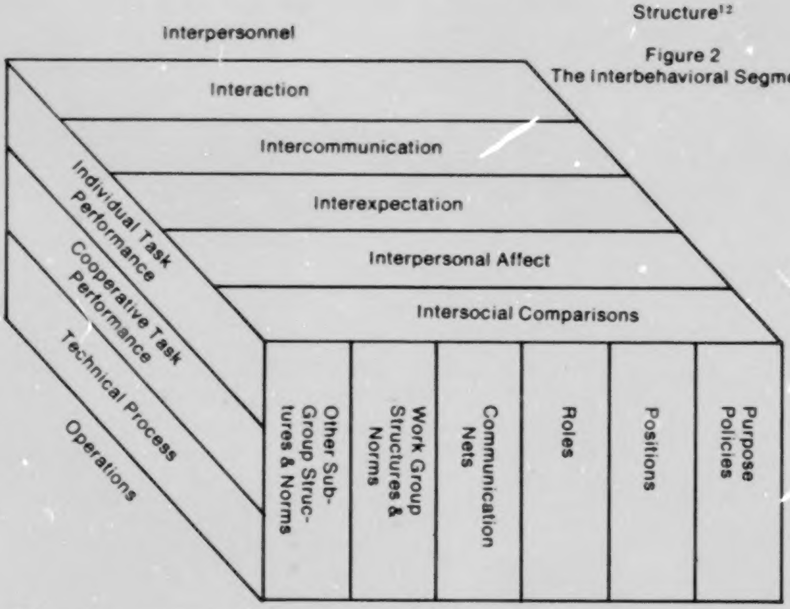
Interpersonnel
Structure[12]
Interaction
Intercommunication
Interexpectation
Interpersonal Affect
Intersocial Comparisons
Individual Task Performance
Cooperative Task Performance
Technical Process
Operations
Other Sub-Group Structures & Norms
Work Group Structures & Norms
Communication Nets
Roles
Positions
Purpose Policies

Figure 2
The Interbehavioral Segment

ture of an organization" fails to differentiate the interpersonal nature of such an organization whereas the interpersonal model, which is an extension of the classical model, attempts to account for the interbehavioral aspects of an administrative setting (see figure 2). These models serve to illustrate the complexity of the research setting which must be considered in generating a research design associated with physical education administration. However, if the researcher systematically selects the variables to investigate, and by employing a MANOVA program as previously described, the ultimate benefits of such research will be to add to a better understanding regarding the dimensions of an organization.

As might be expected, conflict, organizational effectiveness and planning behavior are very prominent aspects of daily personal interaction. The role expectations of an organization and the need dispositions of individuals may result in some form of conflict.. By using the models of Pondy[13], Friedman[14], Mahoney[15], and Golembiewski[16], the interrelationships of organizational effectiveness and planning behavior can be studied as each contributes to the problems of conflict. However, because of the complexity of each model with its possible combinations and permutations, a MANOVA may be used as the main statistical treatment to test the research hypotheses.

In the area of administrative behavior few models exist as an aid to directing potential research in administration. Shartle's model as in Table 1, simply represents the situational and behavioral aspects of the administrative environment.[17]

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[12] **Ibid.**, p. 13.

[13] L.R. Pondy, "Organizational Conflict: Concepts and Models", **Administrative Science Quarterly**, XII (September, 1967), 296-320.

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[16] Robert T. Golembiewski, "Small Groups and Large Organizations", **Handbook of Organizations**, James G. March, editor, Chicago: Rand McNally and Co., 1965, pp. 87-141.

[17] Carroll L. Shartle, "A Theoretical Framework for the Study of Behavior in Organizations", **Administrative Theory in Education**, Andrew W. Halpin, editor (New York: The Macmillan Co., 1958), p. 79.

Table 1
Illustrative Variables in a Model for Predicting Organizational Behavior

Independent Antecedent Variables	**Dependent Variables**
	Performance in the Organization, including:
1. Value patterns	1. Decisions made
2. Situational patterns	2. Ratings of performance
3. Measures of aptitude, knowledge, and skill	3. Measures of attitude change
4. Measures of personality and interest	4. Objective measures of performance
5. Measures of physical energy and capacity	5. Tenure and mobility
6. Past individual and organizational performance	6. Work patterns
	7. Leader behavior dimensions
	8. Sociometric ratings
	9. Learning behavior

Employing this basic premise, the author investigated the behavior of university and junior college administrators as perceived by three positions in each situation level, namely: a superior, subordinates and the administrator per se. Using a 2 x 3 x 12 factorial design and a UMAVAC program the differences, if any, on the perceived administrative behavior was investigated.[18] Because time does not permit a complete elaboration of the entire study the following subset shall be considered representative of the application of MANOVA to this type of research.

Employing the concept that administrative behavior is situationally determined[19], variables can be "examined and compared under different organizational settings or conditions."[20] Thus in contrasting the overall behavior of university and junior college administrators a significant multivariate F ratio was determined at less than the .01 level ($F_{12,203} = 2.6060$). The question must be asked, "Where does the difference lie?" By calculating the univariate F ratio, four administrative behavioral dimensions were found to be significantly different at the .05 level: initiating structure, role assumption, integration and superior orientation. The discriminant function analysis indicated that universities as a whole placed greater emphasis on tolerance of freedom, production emphasis, demand reconciliation and persuasiveness, whereas junior colleges placed about equal emphasis on initiation of structure and integration, followed by superior orientation and role assumption.

The hypothesis under investigation was that because universities are situationally different from junior colleges, the administrative behavior at each level would be perceived to be different by the superior and subordinate groups. As indicated by the significance of the MANOVA F ratio, these two levels of education do reflect different administrative behaviors on the part of the department chairman. The discriminant function results further indicate where these differences exist in terms of the subscales of the research instrument employed. The purpose of the foregoing is to illustrate how MANOVA was used to identify the factors which are more prominent in describing the two administrative situations.

This paper has been a brief attempt to indicate how MANOVA and several associated statistical techniques can be employed in research associated with the administration of physical education and athletics. By using models in conjunction with this type of statistical technique investigators interested in this subdiscipline will move toward being less parasitic and more symbiotic in their contribution to new knowledge and understanding in administrative theory and practice. By reducing the "in basket" research designs which have dominated our research efforts in the past, and by moving toward a more theoretically based problem, the discipline will be able to "contribute to the storehouse of knowledge developing in the area of administrative theory."[21] The end result of the approach may be that theory will then precede practice.

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[18] The statistical package, referred to as UMAVAC, is available through the computer centre, at the University of Illinois, Urbana, Illinois, 61801.

[19] Gordon A. Olafson, "Leader Behavior of Junior College and University Physical Education Administrators", unpublished doctoral dissertation, The University of Illinois, 1969.

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What Does Maximum Oxygen Intake (VO2max.) Measure? How Is It Interpreted? What Are Its Principal Limitations?

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THE PROBLEM OF INTERPRETING THE VO_2MAX. TEST

The rather widespread use of the Monarch (Quinton, calibrated in kpm.) ergocycle to measure the VO_2max. by means of concepts and directions published by Astrand (and the A.B. Cylcel Fabriken Corp.) of Sweden (1, 2) prompts this review of the principles and limitations of this test. There is the major question of what it really measures, and the present need is to prevent overgeneralizations. It is supposed to measure the "Aerobic" oxygen intake capacity of an individual. First of all, it is a misnomer to call the test a measure of "working capacity", if we mean by working capacity the full working ability of the person in terms of foot-lbs. or kgm. of work, done to the limit. The test has been fairly described by the authors as a SUB-MAXIMAL test, limited strictly to "Aerobic" work and does not purport to measure all-out work. But some people do use the term "working capacity" rather loosely and believe that physical fitness (what a person can do) is adequately measured by it. This is certainly **not** true as the subsequent data and arguments will show. It has been shown also that the VO_2max. Test correlates rather poorly with all-out endurance performances (correlations up to 0.68) (3, 4, 5, 6). It is more serious that the Ergometer Bicycle does not measure at all times what it purports to measure, correlating in several experiments very poorly with the acutal determinations of oxygen intake as determined by serial Douglas bag collection method, or continuous gas recording method, involving the actual analysis of the expired gas into percentage of 0_2 and CO_2(7).

Holmgren examined carefully the relative correlations on 10 healthy, male physical education students and 10 similar female students in Stockholm at the Karolinska Klinik and reported among many correlations the following: (8)*

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*R. N. Girandola, F. L. Katch and F. M. Henry, also obtained low correlations (−.29) between max. aerobic pulse rate and the actual VO_2max. (**Research Quarterly**, 42:362-373 (Dec., 1971).

Correlation of VO$_2$max. (1/min) with Vital Capacity = 0.876
Correlation of VO$_2$max. (1/min) with Weight Capacity = 0.779
Correlation of VO$_2$max. (1/min) with Heart Rate at VO$_2$max. Capacity = −.373

Our own correlation for the relationship between Terminal Pulse Rate and Oxygen Intake in a hard Treadmill Run, 8.6% grade, 7 mi/hr is −.034, 100 male college students at the University of Illinois (9). Obviously, it is quite impossible to convert working pulse rate to Oxygen Intake on the basis of such low correlations.

There are at least three groups of experimenters who have advanced data to further the interpretation of the VO$_2$max. and Shepherd has proposed it as an "International Standard of Cardio-respiratory Fitness": (1) Physiologists, who have concentrated mainly on the "oxygen transport" theory, in which oxygen is conducted by the blood vessels and various pressure gradients from mouth to cell (called at times conduction theory); (2) Kine-anthropologists and biochemists, who have placed more emphasis upon the number of oxygen using elements within cells (mitochrondria) and their size; (3) Physical exercise specialists, who emphasize the actual motor performances and body build (physical efficiency), strength and endurance, etc. (which McCloy has usually referred to as strength-endurance), and specific running ability, swimming ability, gymnastic ability, sports ability, etc. While physical educators have made major contributions to cardiovascular fitness, and have shown the factorial components of it, they also have had much more interest in the overt performances, and have just assumed that endurance events, such as the mile run, 2-mile run, 600-yard run, etc., do involve cardiovascular endurance. But various studies have shown that different results may be obtained for VO$_2$max. with different types of work.

In the prediction of 0_2 Intake from the 2-mile run time, it was found by Ribisl and Kachidorian (41) that age and body weight had to be included to get a good prediction, from the equation: 0_2Intake = 114.5 - 0.047 (sec) in 2-mile run - 0.378 (age in years) - 0.154 (body weight in kg.) Just considering the weightings,** the total of the weightings squared is 0.1605, so Per Cent Weighting for the 2-Mile = 1.37%, for age = 48.7% and for Body Weight = 9.44%. When ectomorphy is correlated with ectomorphy, as is done when VO$_2$max is correlated with time for the 1½ Mile (Cooper, **J. Am Med. Assn.**, 203:201-4, Jan. 1968) there is a high spurious correlation due to the influence of body build. 0_2 Intake alone, in a net, specific way, has a rather poor relationship to time in the run for 1½ mile if age and body build are held constant. Several writers state that VO$_2$max should be proportional to the cube of height. Astrand's data up through 3 L/min. are virtually rectilinear with body height. Corrections for age, height and weight cannot be made accurately for an individual treated as an average.

SOME PROBLEMS WITH THE VO$_2$MAX ERGOMETER BICYCLE TEST

It is the purpose of this paper to bring out certain troubles which physical educators and others have had with the VO$_2$max Test, and to warn others of colosal errors of interpretation which can be made. Some of the principle problems are: (1) That high VO$_2$max relatively is a virtual guarantee that an individual is protected from CHD (coronary heart disease); (2) that the working pulse rate at 300, 600, 900, 1200 and 1800 kpm can be observed, corrected for age, then converted into L/min., then corrected for body weight and accurately obtain the m1/min/kg value, which establishes the rating for cardiovascular fitness; (3) that the test of VO$_2$max is a major measure of physical fitness, more valuable even than motor tests, physique tests, and other CV-R Tests, etc.; (4) that the VO$_2$max inflection point, where "aerobic" work changes to "anaerobic" work can be relatively easily determined and is reasonably correct; (5) that the VO$_2$max. Test on the Monarch ergocycle is the real fixed maximal (peak) oxygen intake capacity, just as it would be in any other type of exercise, i.e., swimming, flat running, jogging in place, bench stepping, all-out muscular test-exercises (Push-ups, Sit-ups, Squat Jumps, Side Leg-Lifts, Cureton 18-Item Test, Larson Chinning-VJ-Dip Test, or an

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**Each beta is squared, and the square is used as the denominator/the sum of all of the weightings for per cent, relatively to each other.

Endurance Run.) But various studies have shown that different results may be obtained in VO_2max. with different types of work.

It is to be accepted that a continuous single-run test, or a single-run continuous "serial bag" test, are equivalent to the Balke Type, multi-stage type test. Such equivalence has been shown by several investigators (10, 11) and that six minutes are not necessarily demanded for each stage of a multistage test, whereas, three minutes might well suffice (12). The length of time required to test an individual has been an objection to the Balke type test.

It is the purpose also to make a statement on these problems, based upon our own research and also refer to that of others, as documented, hoping that such a statement will prevent novice research workers, testers in Y.M.C.A. s, and physical education teachers from being unduly intrigued with the VO_2max. Test—to the exclusion of other good tests, and thus mislead people. The crime is not to give a test but to completely misinterpret it to others.

DATA ON A GROUP OF SUMMER SCHOOL TEACHERS

Most of the group tested were active, young physical education teachers, but some were administrators not in physical training. They were tested last summer at Brigham Young University, Provo, Utah. They distribute from 32 to 65 m1/min/kg on Max. 0_2. The group averaged 33 years of age, 22 to 54 range. I took the test first and eliminated myself for the following reasons: (1) at 70 years of age, was out of the age range, (2) maximal pulse never completely leveled off but was 144 on 1200 kpm. load and 146 on 1800 kpm. (which could be done for 3 mins. only). For this age, this was good leg work, corresponding with ability to hop over 700 hops continuously, with no unusual chest pain, or circulatory-respiratory distress considered unusual, although the leg muscles, and Quadriceps did tighten up on the 1800 kpm. My rating from the Astrand Tables was 46 m1/min/kg. My body proportions were 15% fat (from 6 caliper measurements), 46% muscle bul[illegible]nd 39% bone. The result is high for my age. From other data available on mys[illegible], I calculated the result another way (used here to show the method:;

0_2 Intake = Working Pulse Rate (peak) X Stroke Volume S 0_2A-V diff.

(cc/min.) (146 X 182* X .123)

cc/min/kg rating = 3887 cc/min/81.3

= 48 cc/min/kg

*Based upon an all-out 0_2 Intake of 3.3 L/min.

NOTE: (This method is suggested by Simonson, p. 134-35, in his book, **Physiology of Work Capacity and Fatigue,** 1971). It is known that dividing by kg. overcorrects for weight.

Among the available 30 subjects for VO_2max testing were a total of 30 subjects. Ten of these failed to level-off the pulse rate and six complained of leg cramps. Nineteen cases were plotted with VO_2max on the base axis and various other fitness tests plotted on the vertical axis.

VO_2MAX DATA ON YOUNG ADULTS PLOTTED VS. OTHER TESTS

The VO_2max data were plotted on the same students, taken in the same course, the VO_2max on the horizontal axis and the various other tests on the vertical axis. These plots reveal some interesting trends, showing:

1) Among all of the relationships, the best relationship for VO_2max is to the SKELETAL PER CENT OF WEIGHT, from the equation which predicts weight from six skeletal measures (13). The trend is negative, i.e., the ectormorphic (thin-frail) skeletal type having the best relation to VO_2max (1/min/kg).
2) The sum of six fat folds (Cureton's six measures) (14) are positively related, but only poorly so, but a slight trend for more fat (and weight) to be positively correlated with VO_2max. This is also true with VO_2max. plotted against the Pariskova Index using ten fat folds.
3) The best relationship with a cardiovascular test item is when the Stroke Volume is from the Heartometer graph in which amplitude is related

to Grollman Stroke volume from the Michael-Cureton straight line graph. The slope is negative with the higher VO_2max. being correlated with lower stroke volume. It has been proved that higher amplitude on the heartograph is significantly related to running and swimming endurance (15). Since the VO_2max. Test is a submaximal test, stroke volume would be smaller than in a maximal test.

4) There is a low, positive correlation between the Pulse Ratio (av. of 5 Step Rates, as in Cureton's (16) Progressive Ratio: 12, 18, 24, 30 and 36 steps/min., so that a poorer performance in the Progressive Pulse Ratio goes with higher VO_2max.
5) There is no significant correlation between the Schneider Index and the VO_2max. Test.
6) There is no significant correlation between the VO_2max. and the Av. of 10 Heartograph Measures (in standard scores) (17).
7) There is no significant correlation between the VO_2max. Vital Capacity Residual, although the Vital Capacity Residual (corrected for surface area and temperature) and cardiovascular fitness by the McCurty-Larson CV Index (18 is moderately well correlated (0.78).
8) The VO_2max. in these data are poorly related to the 1,000-yard Run Time, probably due to the extremely heavy types in the sample.
9) The VO_2max. has no significant correlation with the Cureton 18-Item Motor Test.
10) The VO_2max. has no significant correlation with dynamometer strength (sum of rt. and left grips, back lift and leg press), or Strength/Wt.
11) The VO_2max. has no significant correlation with the Larson Chinning-Vertical Jump Dipping Test, as indicated against the composite score on 15 athletic events.

DISCUSSION OF RESULTS

The VO_2max Test, whether on the ergocycle converted from working pulse rate, or by gas calibration and analysis, has certain limitations (19, 20). The VO_2max is an inadequate way to describe physical fitness as it relates very poorly to most of the established tests of physical fitness, including several tests of cardiovascular function of established validity. The research has shown, however, that for a cardiovascular test to relate highly to another cardiovascular test, it must be a component which relates to another similar component. The factor analysis studies of McCloy (21), Cureton (22), and Cureton-Sterling (23) show at least nine specific components of cardiovascular function which are not highly related to each other. The submaximal aerobic component, typified in the VO_2max. Test has not usually related highly to other components, nor to all-out athletic performances. It unquestionably has some validity of its own but exaggerated claims should not be made for it. Its high reported relationship to the 1½ and 2-mile running times is considered a statistical fluke with time related to time and ectomorphy related to ectomorphy, etc. Time is also related to a rate measure, giving a high inverse relationship.

The VO_2max test has some difficulties related to measuring it on a calibrated bicycle. Many Americans are overweight and are not accustomed to riding a bicycle of the resistance type. In about one-third of the subjects there was early fatigue of the leg and Quadricep muscles, which seemed to give out before there was any real limitation of central circulatory-respiratory distress. In about the same number of subjects the heart rate did not "plateau" cleanly enough to say that VO_2max. had been reached. Cumming and Friesen (24) reported that only 7 of 20 boys, 11 to 15 years reached a "plateau" in pulse rate while working to exhaustion.

An individual is compared with averages in the Astrand Tables, which are not averages for American, and moreover, the average is not the best. An error is usually made by correcting an individual's working maximal pulse rate to an average (as the great variability in age vs. pulse rate studies would indicate) regardless of whether the individual were physically trained or not; or an ectomorph, endomorph, or mesomorph, or a man or woman, boy or girl. Simonson (25) suggests that with a strong CNS compared to a weak one, there is a difference in the way this test behaves.

The typical adult is impressed by actual performances: how long was the ride? What was the endurance? How strong is the heart? What was the pulse rate? How long did he hold his breath? What was his time for the mile? While there is some admittable danger in putting middle-aged adults through long endurance running tests, there has been no trouble with motor tests in approximately 500 Clinics which I have conducted, and courses including adults, but in these we have not included the 5-min. Step Test, nor the 1 mile, 1½ mile or 2 mile runs. To get away from the realism of actual performances and substitute a test like VO_2max., which neither the laymen nor the professionals understand, is to depart from common sense. Such a test should be researched, however.

The most detailed study has been the study carried out by J. E. Cotes, C. M. T. Davies, O. G. Edholm, M. J. R. Healy and J. M. Tanner (**Proc. of the Royal Society of London:** B. 174, 91-114, 1969) entitled "Factors Relating to the Aerobic Capacity of 46 Healthy Males and Females, Ages 18-28 Years". The narrow range and the fact that all were physical education students at the Carnegie School of Physical Education, at Leeds, reduced the variability as to body type (tall-slender to short-heavy) which was shown in our study at Brigham Young University. The Leeds study produced a correlational relationship between VO_2max. and Total Hemoglobin of 0.40, which washed out to zero when weight was partialled out. This was also shown by Wyndham and by Astrand, et. al., in the latter's study of girl swimmers. The study also showed correlations of −0.17 with height, 0.35 with weight, 0.26 with skin folds of fat, 0.57 with muscle bulk, and 0.69 with K (Total Body Potassium). The latter two correlations indicate that AMOUNT OF MUSCLE and LEAN BODY MASS are moderately well related to VO_2max. The relationship to PVC (Forced 1 sec. Vital Capacity) was 0.32 and size probably accounted for this. The Residual Vital Capacity (size removed) correlated −0.52, which is undoubtedly an AGE effect, as this measure increases with age. Diffusion through the lung membranes correlated −0.21. The most important correlation was found to be a correlation of −0.87 with cardiac frequency at the end of the work.**** The correlation with estimated bodily activity (in life) was low (−0.04). Ventilatory Volume at 1.5 L/min. of 0_2 Intake was −0.14, and with Grip Strength −0.05. It was also shown that VO_2max. and VO_2 at the 1.5 L/min. level correlated −0.06. Since some experimenters have not carried out the work out to the real maximal 0_2 level (i. e., Cumming, Wyndham) and have resorted to extrapolation it is doubtful what the sub-maximal test means.

It is better, of course, not to depend upon raw zero-order correlations, and to doubt correlational values on non-random small samples, as in very small samples; and multiple regression coefficients are somewhat better, called **net** Betas when in standard score form. In this case an $r = B \times r$int., and the weighting that would give the relative proportionate **net** contribution to the criterion is Beta square (B^2) from the Sweall Wright path coefficient statistical system.

In the study by Adams (35) from our laboratory, the **net** proportionate contribution of the several more important variables in question are as follows: (To predict performance in an All-out Treadmill Run)

Variables	**Per Cent Net Contribution** (**J. of Ag. Res.**, 20: 562+, Jan., 1921)
Post-Excercise Brachial Pulse Wave Amplitude from the Heartograph	31.82%
Peak Eosinophil Drop During the All-out Run	22.26%
Peak Ventilation (L/min/kg)	21.23%
Peak Gross 0_2 Intake (L/min/kg)	14.82%

****This correlation means that low pulse rate goes with high performance. It may be noted here that coronary blood flow is proportional to Systolic Blood Pressure X Pulse Rate, and myocardial 0_2 equals proportionately Coronary Blood Flow (CBF) X 0_2 A-Vdiff. (Cf. K. Kitamura, et al., **J. App. Physiol.**, 32: 516-522. April, 1972.) Since the VO_2max. does not include these variables, nor even the terminal working pulse rate, it is doubtful if it is related to myocardial 0_2.

Peak Exercise RQ	5.34%
Peak Recovery RQ	4.52%

Another of the greatest difficulties is lack of **specificity** in any improvement made in VO_2max., as it cannot be interpreted (26, 27, 28). A review of the literature shows much confusion and disagreement among able people, but who usually work in slightly different areas (physical educators, physiologists, biochemists, anthropologists, physicians). Muscular endurance, on the other hand is clearly visible, and quite specific, even to a layman. (29) Fatigue is localized and is due (according to Kjaiser (69) is due to low pH of the particular muscle and accumulated lactic acid. In VO_2max. where is the fatigue?

Standard Errors of Difference (Single Case Re-tested)

The standard errors of measurement and S.E. of the difference between two means are available from several reports. (38, 39, 30) For particular individuals the errors are very large, as large as 2 S.D. from the mean line of regression. There is another type of consideration also, that an S.E. diff. of 2.43 m1/min/kg for an individual, or = 4.86 (1% level) and = 7.29 (5% level) are larger than most of the improvements made by individuals in a course of 6-months training. Klissouras has published a report showing that 0_2 Intake is 93.6% inheritable, this from a study of paired sets of identical twins, where one twin was trained and the other was not in an experiment. The trained twins improved very little, compared to their identical blood twin. Most of the improvement data in the literature are 10 to 15% without weight change. Much larger changes are shown to be associated with a weight reduction which brings about an "apparent" improvement in m1/min/kg or in m1/min. It is difficult to know what the improvement really means. Statistically significant changes in VO_2max. are hard to find, over and above corrections for lean body mass. (32) They are usually 10% or less, and this residual (actual) change cannot be interpreted as circulatory, respiratory, glandular or mitachrondrial.

A change in capacity to breathe more air, just ventilatory volume increase would probably account for the change in VO_2max. (real) as there is high correlation between these two variables up to the VO_2max. point, then ventilation may increase more than the 0_2 Intake. Various investigations have shown that VO_2max. is highly related to lean body mass, hard muscle bulk, and to mitochrondrial mass (active muscle). (33, 34, 35) A recent Japanese study reports the correlation between VO_2max. and weight in growing adolescents to be 0.88. In this paper it was interesting to see that the variability in VO_2max. was much diminished when related to SKELETAL PER CENT of WEIGHT and to SKELETAL INDEX, as based upon five boney measurements in a regression equation to predict weight. The higher VO_2max. values were amongst the slender ecto-mesomorphic types, and relatively low VO_2max. was with the heavy-short more ponderous types. The best runners were of ecto-mesomorphic build at 1000 yards, especially among the four women. It has been shown that fat is a great handicap in runs over 1/2 mile in length. It can also be known that in general a greyhound will beat a hippopotamus in distance running. Several studies have shown the superiority of the ectomorphic or ecto-mesomorphic build and height in endurance running, just as Cureton's study demonstrated it in 1945. (37, 38, 39)

Cureton (37, 38, 39) demonstrated that men of ectomorphic build bettered the average prediction for running endurance, and heavy men failed to equal it. In an extensive plotting of the somatotypes of various types of athletes, the most successful distance runners are in the ectomorphic group. More recent research by Malina and associates, Costill and associates, and Brown and associates show the same trend (40). Obese individuals have usually tested below average in VO_2max.

ECTOMORPHS DO BETTER IN VO_2MAX. AND IN ENDURANCE RUNS

High reported correlations between VO_2max and running time over a mile or more, as reported by Ribisl and Kachidorian (41) and by Cooper (42) need to be explained. This is not real true relationship because on the correlational plot time is on the run axis and time is also in the ml/min/kg for 0_2max. Here we have time on both axes, and time is correlated almost perfectly with time, except for sampling and measurement variations. When time is dropped out on one axis, the relationship falls sharply (as pointed out by F. M. Henry, Df. p. 337-338 in Cureton's **Physical Fitness of Champion Athletes**, 1951.) Also age is a variable affecting both axes, so when age is partialled out, the correlation drops in value. Actually VO_2max. relates rather poorly to such performance when the **net** type of correlation is used, as several studies already mentioned have proved. Actually, we have here a fluke of statistics, which may fool many people and give unjustified value and prestige to the VO_2max test.

Miller and Blythe (43) have shown the increased energy cost of fat and of the heavy, ponderous type of body build. Everyone knows from a practical point of view that a greyhound would defeat a hippopotamus or a large ape in a long distance race. Obese types do poorly in distance running and in VO_2max. The many factors affecting Maximal 0_2 Intake are being realized and Cotes, et. al. (44), have reported on the great influence of body build. Wyndam (45) has shown by partial correlations that weight contributes 70% of the net variance in VO_2max and height contributes 4% more. There is no good agreement as to exactly how the corrections should be made, and Astrand has shown that VO_2max varies as to the height, and Seltzer (47) also has shown the influence of height, giving higher 0_2 Intake values. The lean fit samples of Wyndam's Bantu give different values than Astrand's Swedish subjects, and both do not agree well with American males. The biggest difficulty is that in the use of such tables a given man is fitted to a line as if he were an average, and usually that is not so.

PREDICTIONS OF PERFORMANCE IN SWIMMING

The 0_2 Intake Test in swimming failed to account for performance time very well, compared to other types of neurological-mechanical tests (arm speed, leg speed, resistance, etc.). Swimming against time, as in these tests, is not properly classified as an "aerobic event" but oxygen debt is also very much a factor. In this work Van Huss and Cureton (48) used logarithmic methods and causal analysis (net contribution) statistics. Faulkner (49) et. al., obtained higher relative values in teether-swimming than did Van Huss and Cureton because of somewhat different apparatus. Faulkner did not analyze the contribution of 0_2 Intake to swimming performance.

O_2 INTAKE DOES NOT REFLECT IMPROVEMENTS EXCEPT WITH WEIGHT CHANGE

Many types of improvements occur in connection with physical training. It has long been a problem in the physical education field, as it has been noted that VO_2max is hard to improve, relatively to other muscular endurance items and runs, but the VO_2max reflects the change in weight, so much so that it is impossible to give an exact interpretation of the measure. What is needed for the measure of cardiovascular-respiratory fitness are measures which are relatively independent of weight, height, age. Among young men, tested on the heartometer, this has been shown to be true (50). There is a low correlation between the brachial pulse wave and the VO_2max because they are shown to be different components (51). Such components are uniquely different, and their validity does not hinge upon interrelationship as upon uniquely independent validations. When obese individuals are tested in 0_2 (L/min) and then this is divided by weight, there is a spuriously low result due to such division making an over-correction. In general there is a spurious influence of weight on improvements in VO_2max. In Kasch's data (52), for instance, the per cent of improvement of middle-aged men over 24 months of physical training was from 31.4 to 39.5 ml/min/kg (25%) while the average weight of the subjects dropped 6.36 lbs. (36%) over the same period of time. The control subjects dropped from 33.8 to 32.7 ml/min/kg (-3.32%) in the same time, due to inactivity. In a number of studies which have been reviewed this is likewise true, that when weight drops the apparent value of VO$_2$max goes up, just because a smaller value for weight is used.

C. D. Hudder and A. B. Harrison (53) used Cooper's program, 30 points each week for 16 weeks, and tested with Balke's multi-stage system. The subjects who were classed as "fit" middle-agers did not improve in the VO$_2$max but those classed as "unfit" improved in approximate proportion to loss of weight. At Illinois, a group of middle-aged women were divided randomly and matched statistically in endurance running (mile run). One half of the women on Cooper's "Aerobics" program failed to improve in Oxygen Intake Capacity in an All-out Treadmill Test, but the other half on Cureton's Rhythmical Continuous Program did improve in proportion to loss in body weight. The more ectomorphic women had better run times on the track and on the treadmill (54). In a study by Liu (55) a group of middle-aged women were trained progressively for 20 weeks, mainly in jogging but also with some training calisthenics, and the group averaged an improvement of 3% in ml/min/kg of VO$_2$max. There was an insignificant change in weight. It was shown also that in re-tests of the controls that there was an improvement of 3% without taking any exercise but just from taking the test again.

Improvements are not very comparable unless the scores are in terms of standard scores (S.S.), then all changes may be compared on a standard scale. Otherwise, the denominators are different for each test, and for comparison the denominators should be in the same units and against the same scale. Pollock, et. al. (56), have reported in a walking study, 4 times per week, for 20 weeks, that middle-aged men improved from 2.30 to 2.94 1/min. (28%) but resting heart rate, maximal heart rate and systolic blood pressure did not change, with a body weight loss of 2.86 lbs. (Balke Method on Treadmill with gas analysis); and there was an increase in maximal ventilation from 86.9 to 102.6 1/min. at a peak heart rate of 146 b/min; and the mile time decreased 17% from 774 to 664 sec. in the walk. This study involved 15 men, one drop-out, starting with 16 men. In a jogging study Pollock (57) found an improvement of 24% (24.9 to 38.8 cc/min/kg) using the same method for testing, but tested the men also on the Astrand Method (Monarch Ergocycle) and found only 10% improvement (26.1 to 28.7 cc/min/kg).

Raw zero-order correlations may be very misleading, and betas, or Betas are required in a multiple step-wise correlation system to determine the **net** value of each. We have made those kind of calculations and in several studies the relative value of 0_2max has reduced very considerable compared to what has been reported in terms of raw correlations. Weight correlated with height about 0.78 but we know that weight is not height, and this means that one cannot be substituted for the other. Nor can the working pulse rate alone be fairly substituted for circulation. Pulse rate as a time measure cannot describe volume or force.

Hill's (63) Oxygen Requirement, i.e., $\frac{\text{TOTAL OXYGEN}}{\text{time}}$ (Intake and Debt Oxygen) is a rate measure, and when related to a timed event gives a high correlation but INVERSE in sign. In my volume **Physical Fitness of Champion Athletes** we compared various measures, with and without time, and also with and not divided by weight. We must divide by weight or use the logarithmic form as Henry (64) has given the exact parabolic formulas for relating 0_2max to performance, and confirmed Hill's important work.

We were the first, however, to develop prediction equations to predict all-out time in the treadmill run (10 mi/hr/8.6% grade) for young men, and working with Eugene Doroschuk, on his Ph.D. thesis, we compared the standard score equations of young men and boys. The older the subjects, the more oxygen debt becomes involved as contributing to the performance. The type of equation for young men derived was:

Predicted Time in the = 0.75Max.0_2 Intake(L/kg) − .46 (Rate of 0_2 Debt
Allout Treadmill in L/min/kg)
Run (in standard scores) (62.0%) 38.0%

(E. H. Cristensen and H. R. Hedman and B. Saltin, "Intermittent and Controlled Running", **Acta. Physiol. Scand.**, 50: 269-286, 1960) reports that 1/3rd. of the oxygen demand was met by oxygen stored in the muscles. Our figure of 38.0% is in short and very heavy work, 10 mi/hr/8.6% grade

This equation shows that the WORKING PERFORMANCE of young men in work of 1 to 5 mins. as in this test cannot be met by use of aerobic oxygen.

DANGERS OF MIS-INTERPRETATION

The present danger is in assuming that the 0_2max. is high in protected individuals from coronary heart disease. That proof is not in yet, and the risk factors which **are** related include high cholesterol for age, high blood pressure for age, high pulse rate combined with flat T-waves and flat (slow velocity and acceleration of ejection) pulse waves (Starr), and sedentary living. The place of the VO$_2$max measure has yet to be included in epidemiological studies. It is probable that improvement of VO$_2$max has benefits which are associated with reduction of weight, but inferences that improving the VO$_2$max are hopeful, ambiguous statements as a guaranteed protection against heart disease, as many thin people have it.

Simonson (65) in his 1971 book, **The Physiology of Work Capacity and Fatigue** states that the cause of the deterioration of VO$_2$max with age is yet unknown, and that the real reason should be sought (pp. 414-416), nor is the deterioration of physical performance fully known. Strandell (66) has blamed neuromuscular factors and higher blood pressure more than oxygen transport. The decline follows quite closely the decline of **basal** metabolism; and it has been shown in the Minnesota semi-starvation experiments that VO$_2$max deteriorated badly, as did working capacity over a period of 6 months in which 40% of the body weight was lost. There is also the possibility of its deterioration with adrenal function and it is also associated with blood serum losses in potassium and iodine. The progressive loss of sympathetic tone by the heart and large arteries may play an important role. While VO$_2$max declines with age, and also with detraining, the reasons are not fully known. Likewise, when VO$_2$max improves as a result of progressive physical training, the reasons need to be pinned down, as they are very complex and generally unknown. Most of these changes only reflect a change in weight. It is not known why VO$_2$max. relates so well to height or thinness of bone.

Milesis attempted to predict cholesterol values from data obtained in our laboratory in Urbana. In this work age contributed 58.86%; fat excess (More than av. for type by Cureton's 6 fat-folds) contributed 18.69%; specific gravity contributed 14.19%; and grams of saturated fat at breakfast 2.03%; and PWG$_{170}$ contributed 6.23%. This latter figure is essentially the same as VO$_2$max couched in a slightly different form, preferred by some testers. Its low association with cholesterol may be noted.

MORE WORK ON LESS OXYGEN

It is known that a well-trained individual can perform on a standard work test more economically than an untrained individual. This means that he can do a given work task, as in the sub-maximal work associated with the VO$_2$max Test on relatively less rather than more oxygen. But with more and more work performed by an individual the oxygen used goes up until the 0_2A-Vdiff. curve levels off. This point is fairly hard to locate as our serial bag measures show, and sometimes is a crude guess on the part of novice testers, who depend upon pulse rate to determine this point. Basically, from Fick's equation,

$$\text{Blood Flow (1/min.)} = \frac{0_2 \text{ Intake (1/min.)}}{0_2\text{A-V diff.}}$$

and 0_2Intake = $0_2\overset{X}{\text{A}}\text{-Vdiff.}$ X blood Flow. The neglect of the utilization of oxygen at the celluar level, which is done when 0_2Intake (L/min) is related to pulse rate directly by nomograph method, makes the VO$_2$max measure inadequate as a measure of oxygen consumed, as the actual VO$_2$used is indicated by the latter and not by 0_2 Intake. So, when VO$_2$max is equated to 0_2 Intake = Blood Flow X $0_{2\ \text{A-V diff}}$ the 0_2max is now multiplied by rather than divided by $0_{2\text{A-V diff}}$ as in the Fick equation. This has given some inverse relationships shown in our data as plotted. Blood flow is not equated exactly to 0_2 Intake, as some try to make it out to be. As work increases there is a shift of the $0_{2A\text{-}V\ diff.}$ from .06 to .123 (as an average) to as high as .170.

We have no doubt about Total Oxygen used being needed or related to performance, it is just that the method of trying to convert working pulse rate for an individual into blood flow (or circulatory) fitness is not right, nor good enough. The several separate components of circulatory-respiratory fitness should certainly be assessed, as we have always done. The most important of these is the stroke volume, and as several competent researchers have shown, when the going gets hard, the ability to develop a stronger stroke volume/beat to meet the need, or a higher amplitude of the pulse wave, or higher relative minute volume is what is wanted. Kaijser from Stockholm, reports in a monograph (**Acta. Physiol. Scand.** Supplementum 346) "Limiting Factors for Aerobic Muscle Performance" that it is LOCAL CIRCULATION, which may be inhibited by tension which limits performance: values 5% below or 30% above the normal 0_2 Intake values did not influence the $0_{2A\text{-}V\ diff}$, the arterio-venous difference, nor the performance time during exhaustive work. It was concluded that neither the local blood perfusion nor the oxygen diffusion from blood to muscle limits the local 0_2max intake. With much higher levels of 0_2in the arterial blood, the subjects stopped in their working performance at a lower level than when breathing ordinary air. He concluded that the anaerobic intake is the principle limitation to the supply of oxygen uptake to the muscle, which is known to rise sharply at first and **not** diminish sooner than 10-15 mins. of continued work on the ergocycle.

In a study of the predictability of time in swimming by Van Huss and Cureton it was shown that the 0_2Intake (aerobic) and 0_2 Debt contributed 25.64% and 74.35%, respectively, in predicting 100-yard time; and likewise contributed 40.18% and 59.27% to the 440-yard swim time, based on **net** squared Betas obtained in using the Sewall Wright system of net correlation prediction. Coordination, proper mechanics, body build (horizontal floating capacity) and brachial pulse wave also had net contributing value. The ability to perform with arms alone, legs alone and to glide economically (reducing body resistance) were tests which permitted higher relative multiple R's for predicting swimming time than any combination of 0_2 Intake or Debt as measured. Some of the men with great ability in the water did not do well on the treadmill running tests, and gave different values for oxygen intake and debt.

IS THE VO_2MAX TEST A TEST OF CIRCULATION?

Since the VO_2max Test is influenced so much by body build, and this varies so much in the samples which have been reported, it is doubtful that the Ergometer Bicycle Test is a good circulatory-respiratory test. The oft repeated references to the 0_2 Intake being "The best CV-R Test" can hardly be justified, and at least needs further analysis. Just recently Cumming and Borysyk (58) have attempted to compare the heartometer test with the VO_2max (directly measured) and found a low correlation. No claim has ever been made that there has been a high relationship, as the factor analysis studies have shown just the opposite, that the VO_2max Test measures a different factor than the brachial pulse wave, but the latter comes out of the Thurstone first as the largest "most common" component extractable from the matrix of intercorrelations, each test being unique for itself, and such factors are not correlated but are mainly different (unique). These data were 97 men, 41-65 years of age in a Y.M.C.A.

Holmgren (59) has reported some raw correlations, using 10 men and 10 women physical education students and interrelated measures of structure (body build), respiratory measures, and diffusion measures, total hemoglobin and diffusion measurements at the lung level. The correlations were all generally high, above 0.70. No refined causal analysis, or step-wise multiple correlation work was reported with these data. The high relationships with Hb are spurious as has been pointed out by Wyndham and others, being a reflection of weight. With weight held constant this high correlation dropped to nearly zero. The pulse wave may be used to test circulation in various parts of the body but the VO_2max was not related to circulation, as has been done in our work with VO_2max and the pulse wave related to Pulse Pressure X Pulse Rate, and to the Fick equation of Heart Minute Volume = O_2Intake (1/min.)/$O_{2_{A-V\ diff}}$ the latter obtained by the Grollman method (60). Also, we have reported the casual statistical analysis (based on Betas squared, **net** correlational system of Sewall Wright (61, 62). It has been shown by Wyndam, et al., (**S.A. Med. J.**, 41:9 August, 1969) that at a given speed in m.p.h. O_2 consumption in endurance running (in L/min) is higher in heavier runners than lighter runners but dividing by kg. of body weight reverses this trend.

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Physique and Performance

ERNST JOKL
University of Kentucky

The problem must be analyzed against the background of the world-wide improvement of all athletic records during our century. Fig. 1 shows the upward trends of performances in long jumping, 400 m free style swimming, and the 5000 m track race. Throughout the past decades, **we have been living in an expanding athletic universe.** In some sports, growth curves constructed from world records are now entering their asymptotic phases, that is, they approach or attain finiteness: Bob Beamon's Mexico City performance in 1968 of 8.90 m or 29 ft 2½ inches will not be further improved. (fig. 2)

Performance growth in some sports—not in all—relates to a variety of modalities of the athletes' physiques. For example, the determining role of **body bulk** is recognized in wrestling and weight lifting in which sport separate competitions are held in 9 weight classes. In fig. 3 are plotted record performances in **weight lifting** since 1948, for the bantam, light-, and superheavy—weight classes, open to competitors weighing 56 kg, 67.5 kg, and 110 kg and above. The winner of the Gold Medal in Mexico City in the superheavy-weight class, Zhabotinski, weighed 164 kg. We have calculated the winning performances per kg body weight for each of the seven weight classes that were admitted at Mexico City and at the world championships in 1971 in Lima, Peru. The relative strength of the superheavy-weight champions thus assessed is but half as great as that of the lighter weight contestants. (fig. 4)

In other sports body bulk is not only of no advantage but of distinct disadvantage. Fig. 5 shows one of the world's best **woman middle distance runners** in 1971 next to two champion **discus throwers.** Each of the latter weighs 3 times as much as the girl who can easily beat them over a mile. Evidently, the term fitness as a scientific designation is meaningless unless it is related to a precisely identified performance category.

During the past decades there has been a marked increase in height and weight of the best competitors in several—again not in all—sports. Fig. 6 shows measurements obtained from the finalists in the **throwing and long distance events at the 1928 Olympic Games in Amsterdam and in 1964 in Tokyo.** Champion athletes today are taller than they were 40 and 50 years ago and in the case of the throwers they are much heavier. Fig. 7/8 compares heights and weights of the **University of Kentucky basketball team of 1948** which won the NCAA championship and represented the U.S. at the London Olympic Games; with corresponding measurements of the University of Kentucky basketball **team of 1968. The former were distinctly smaller and weighed less** than the latter. It is noteworthy however that the "**team-structure**" as a whole as revealed by the combined body measurements of the five starters was the same in 1948 and in 1968: Merely levels of height and weight had shifted upward during the 20 year period under study. Good basketball teams must have only one or two very tall players; the other 3 need not be, and usually are not of exceptional length, even though it is true that midgets are not especially suited for the sport. Major **improvements of skill** have taken place together with the physical changes between 1948 and 1968 as evaluation of play statistics shows (fig. 9). We have continued the basketball study and assessed the University of Kentucky team's performances for 1971. The latter performed significantly better than that of 1968 as shown by its play statistics. However, no further changes of physique had occurred in the 3 years 1968-1971. Optimal physiques for basketball are now known to coaches who select and make appropriate use of young players who comply with the prerequisites. Giants like Alcindor and Wilt Chamberlain will continue to appear on the basketball scene from time to time. But whole college teams consisting of such exceptional individuals are not likely to be seen.

A general conclusion is to be drawn from the results of the basketball study: Champion athletes today are chosen initially on the basis of their known endowment —morphological or otherwise—for the kind of sport in which they eventually excel. Thus, the tall basketball players are not tall because they play basketball. Rather they were attracted early in their school days to basketball because their tallness rendered them specially suitable for the game. Good and sustained training is of course a necessary pre-requisite for success in basketball as well as in all other sports.

There have been **changes in physique** during the past decades affecting **entire populations.** The magnitude of these changes however is not as great as that of the differences between the 1928 and 1964 Olympic finalists in the throwing events, or between the 1948 and 1968 University of Kentucky basketball players. Fig. 10 depicts an American high school boy drafted during World War II, standing next to a knight's armor worn in Elizabethan England. He does not fit into the iron shell. The drawing in fig. 11 was made by the German poet Goethe who as a Cabinent minister in the municipality of Weimar was in charge of recruitment of young men for the army—not a pleasant affair to judge from the despairing gestures of the woman on the right whose husband is evidently drafted against his will. Goethe gave instructions to the effect that body measurements of the young men be recorded. From these and other data collected during the 18th and 19th centuries we can assess nature and scope of changes of physique and maturation that have taken place in the meantime. In fig. 12 ages of **menarche** are plotted for over a hundred years. Maturation of girls occurs much earlier today than in 1840.

One reason of the "**acceleration of growth**" is the improvement of **nutrition** that has occurred in countries like the U.S. or Western Europe. For example, during the past 50 years **rickets,** a disease due to deficiency of vitamin D has disappeared (fig. 13). Data were obtained in Glasgow, Scotland by the late Sir John Boyd Orr. Another reason for the acceleration of growth has been the virtual elimination of the infectious diseases, an achievement of public health confined to technologically advanced countries. (fig. 14)

Intensive training causes major **changes of body composition.** Fig. 15 shows a wrestling champion at age 25, and again 30 years later: The fact that he looked then fat and ugly was not due to his having become older but to his discontinuation of training. Professor Tanner of London has compared **body types** of unselected university students with those of the British Olympic team of 1960. The triangle introduced by Sheldon (fig. 16) allows visualization of each individual's "endo-, meso-, and ectomorph features", or in terms of the pioneering work of Ernst Kretschmer of their "pyknic, athletic and asthenic habitus". Among 5000 university students (fig. 17) all varieties of physiques were represented. Most among them were of medium build, only a small number could be described as very fat or very muscular or very skinny. In fig. 18 the somatotypes of the British Olympic team of 1960 are plotted. The diagram is marked by the complete **absence of fat** individuals. Most top class athletes are lean. A few exceptions from this rule, interesting as they are, confirm the rule: For instance channel swimmers are fat because of the special thermoregulatory requirements of their unusual performances; likewise, superheavy-weight lifters are muscular as well as fat. To keep a body of 164 kg like Zhabotinski's together, fat is needed as binding material.

Another feature pertaining to the body composition of athletes is that they **contain more water** than untrained people (fig. 19). Unfit people have less muscle mass; most of them carry surplus fat which contains virtually no blood **vessels**. If a fat person trains, he loses fat and accumulates more body water. Vice versa, athletes who discontinue training "get out of shape", put on fat and lose water.

The extent to which **fitness and fatness are related** is shown in fig. 20 which tabulates results of the AAHPER physical performance tests for the 10 fattest and the 10 fittest boys of a school class of 50 children, all of them thirteen years old.

A special morphological feature that determines certain types of athletic performances is the **size of the heart**. Good long distance runners, or long distance cyclists, or long distance skiers or long distance swimmers have large hearts; contrariwise untrained and fat people have small hearts, or as Professor Raab put it, "loafer's hearts". If good endurance performers discontinue with their training, the size of their hearts decreases (fig. 21). Professor Saltin of Stockholm obtained the consent of 5 well-trained cross-country runners to stay 21 days in bed. He found that their hearts had become much smaller during this brief period. (fig. 22) The hearts regained their pre-experiment size with the resumption of training.

Exercise is not the only determinant of the size of the heart. Fig. 23 shows outlines of the heart of a participant in Professor Ancel Keys' famous **starvation** experiment in 1942 conducted with conscientious objectors, on the left before, on the right, 6 months after being restricted to a diet of 1500 calories per day. People who do not have enough to eat are not likely to perform well in endurance events.

Finally, a reference to a performance sector in which measurable attributes of physique do not play a determining role: the **coordinative capacities of the human hand** are of overwhelmingly greater significance than its size. (fig. 24) The hand on the left is that of the German pianist Wilhelm Backhaus, that on the right of the Polish cembalist Wanda Landowska. Many concert programs played by these two distinguished artists were the same.

The President's Report

Deane E. Richardson

The President, acting under the aegis of the Constitution and Bylaws has accomplished the following activities in 1971:

1) Appointed Robert Korgsgaard as Parliamentarian for 1971.
2) Appointed replacement members to all committees, seeking members with demonstrated interest in the Association, and desire to serve.
3) Appointed chairmen of all committees and provided each with a copy of the oppropriate operating code and a list of committee members.
4) Wrote to each chairman of a President's Committee, stating the charge of the committee. These committees were:
   - Fiscal Resources
   - Junior College Membership
   - Minority Group Memberships
   - Structure
   - Summer Exchange
5) Served as an ex-officio member of all committees.
6) Corresponded with committee chairman regarding the progress and activities of their committees.
7) Worked with the Convention Program Committee chairman (the President-Elect), the Convention Manager and the Secretary-Treasurer regarding the planning for the 75th annual meeting of the Association.
8) Prepared copy for both newsletters.
9) Appointed Dale Hanson as representative to the **Quest** Advisory Board.
10) Corresponded with NAPECW officials regarding the NCPEAM-NAPECW booth at the AAHPER National Convention in Houston in 1972.
11) Appointed James O'Brien, working with Barry Pelton and Frank Bearden, as co-chairman of the NCPEAM-NAPECW booth.
12) Appointed Kenneth Holland to represent the NCPEAM for the inauguration ceremonies for Dr. Dallin H. Oaks, President of Brigham Young University.
13) Appointed Kenneth Holland to represent the NCPEAM at the inauguration of Dr. Robert E. Collier, President of Northeastern State College, Oklahoma.
14) Appointed Sheldon Fordham as NCPEAM liaison to the AAHPER College Physical Education Commission at the planning session held in Chicago January 25, 26, 1971.
15) Appoimted Don Casady as NCPEAM representative to the AAHPER College Physical Education Commission.
16) Met with the Executive Council at the 1971 Convention held in Detroit in April.
17) Met for two days with the AAHPER College Physical Education Commission at the AAHPER National Convention in Detroit to discover the relationship between the Commission and the NCPEAM.
18) Represented the NCPEAM at the WCMPES meeting held in Reno in October, 1971.

19) Corresponded with Thomas K. Cureton regarding the inclusion of NCPEAM in the proposed Encyclopedia of Physical Education, an undertaking of the AAHPER Research Council.

20) Recommended highly qualified Association members for desirable positions in universities throughout the country.

21) Corresponded with Richard Moriarty, University of Windsor, regarding the problem of tax exemption for Canadians attending professional meetings in the United States.

22) Requested the Executive Council to approve the changing of the date of the New Orleans convention at the urging of the Convention Manager and the Chairman of the Minority Group Membership Committee.

The President is indebted to and wishes to thank the Executive Council, David C. Bischoff, the President-Elect, C. E. "Pat" Mueller, the Secretary-Treasurer, and Harvey Jessup, the Convention Manager, for the loyalty and support each gave me during 1971. It has been a delight and a most rewarding experience serving the Association as its President, and I wish to thank the NCPEAM members who made this experience possible.

The Association has chosen wisely in selecting as its new leader David Bischoff, President of NCPEAM for 1972, and under his leadership the Association will continue to meet the challenge of keeping NCPEAM at the cutting edge of the profession.

Secretary-Treasurer's Report

C. E. MUELLER

In addition to administering the routine affairs of the Secretary-Treasurer's office for the fiscal year 1971, the following items are identified for your information.

1) A mail vote was conducted amending Article VIII of the Constitution specifying Robert's Rules of Order to govern Association business meetings and Article VIII, Section I of the By-Laws reducing the quorum for business meetings, both of which passed.

2) The following items were distributed to the Membership: Copies of 1) the Structure Committee Report, 2) the Research Committee's List of Laboratories for Physical Education, 3) a questionnaire for the Summer Exchange Committee, and 4) an Emeritus Membership survey.

3) Three (3) NEWSLETTERS were printed and mailed to the Membership in February, May, and October.

4) If you have no[illegible]dy received them, the PROCEEDINGS should be in your possession by the time you return from this Convention. Printing and distribution were delayed because some of last year's program participants were three months late in submitting their manuscripts. It should also be mentioned that some of the authors owe a debt of gratitude to the proof readers. Frequently, it has been necessary to contact the writers for interpretations of certain phrases or to ask them to fill in missing or obscured words. It is doubtful if some of them would give their students passing grades for similar lack of clarity and neatness. Members making presentations at this year's Convention are asked to carefully check their manuscripts to avoid unnecessary delays and costs.

5) One thousand, two hundred and eight-two (1,282) memberships, a record

number, were processed during fiscal 1971. This was a 130 member increase over the previous year.

MEMBERSHIP SUMMARY

	1970	1971
HONORARY MEMBERS	74	83
NEW MEMBERS	170	226
ACTIVE MEMBERS	908	973
TOTAL	1152	1282

STATEMENT OF CASH RECEIPTS, DISBURSEMENTS, AND FUND BALANCES FOR THE YEAR ENDING AUGUST 31, 1971

FUND BALANCE, SEPTEMBER 1, 1970		$ 574.46
RECEIPTS:		
Membership dues	$12,442.50	
Publication proceeds	1,542.98	
Reimbursed expenses	50.00	
		14,035.48
		$14,609.94
DISBURSEMENTS:		
Office supplies and expense	$ 233.16	
Secretarial and clerical	762.50	
Addressograph and mailing	1,051.14	
Printing	617.51	
Newsletters	424.18	
Proceedings, 1971	3,929.43	
"Quest" monographs	3,855.00	
Convention expense, net	1,458.54	
Secretary-treasurer fees	700.00	
Officers expenses and fees	610.15	
Audit	288.00	
AAHPER booth rental	159.85	
Big Ten Symposium	200.00	
Bank charges and discounts	8.96	
Miscellaneous	80.00	
		14,378.42
Fund Balance, August 31, 1971		$ 231.52

SUMMARY OF FUND BALANCE

Checking account—University National Bank Minneapolis, Minnesota	$ 231.52

Convention Manager's Report
75th Annual NCPEAM Conference

HARVEY M. JESSUP

The following report of the 75th annual meeting of NCPEAM is submitted as directed by the Operating Code.

Facilities

The 75th Anniversary Meeting of the NCPEAM was held at the Sheraton-Charles Hotel in New Orleans, Louisiana. The excellent facilities and services of the hotel made for a very smooth-flowing convention. Room rates, complimentary rooms, luncheon prices, hotel services, audio visual rentals, and bus tours were all confirmed in writing prior to the start of the convention. Pre-convention meetings were held with the sales department of the Sheraton-Charles Hotel periodically for about four months prior to the convention.

Attendance

The 75th Convention was perhaps the largest attended in recent years with over 300 registrants recorded. No attempt was made to keep an exact count on all program meetings, but suffice it to say that most rooms were overflowing. Perhaps 100 was the minimum estimate at each of the regular meetings and over 200 attended the General Sessions. All meetings were well attended in spite of the evening sojourns to the fabulous French Quarter in the heart of the "city that care forgot".

Publicity and Press Coverage

Three press releases were made in conjunction with the convention. The first was a pre-convention story announcing the convention and the expected participation. The second was a release relevant to the officers of the Association, programs, and attendance. Although there was also some discussion with the press regarding the function of NCPEAM and its concern for the future of the profession of Physical Education, these items were not carried in the local newspapers. The third release, the Resolution passed by the Association, was given to the Associated Press as well as the local newspapers.

Recommendations

The following suggestions are made as a result of our experiences at the 75th Annual Meeting, and for the most part are a reiteration of those suggested by Lee Ragsdale following the 74th Annual Meeting. 1) Ensure that all program participants make their requests for audio-visual equipment well in advance. There should be a standardized form distributed by the Vice President-Elect to all convention participants ascertaining their audio-visual needs. 2) In addition to having the audio-visual equipment on hand, it is well to have a standby service, either through the hotel or one of the local audio-visual business concerns. 3) Have competent operators for all audio-visual aids whether requested or not. Many people requesting projectors, overheads, and the like are not familiar with their operation. 4) Assign responsibility for checking out and returning audio-visual equipment for each meeting in which they are used. Do not allow one programmer to turn over the equipment to another. 5) Do not arrange special bus transportation for wives' tours except on a standby basis. It is difficult to ascertain the number of wives who will be attending and further, the number who will be interested in bus tours. This can be done during registration the first evening or the following day.

A number of congratulatory comments and letters were received about the convention. Appreciation is herewith given to the Association officers, the Sheraton-Charles Hotel, and all those who assisted in making the 75th Anniversary Convention a success.

Minutes, Executive Council

EXECUTIVE COUNCIL MEETING
DETROIT, MICHIGAN
SUNDAY, APRIL 4, 1971

Members present: David Bischoff, Samuel Cooper, Arthur J. Gallon, Chalmer Hixson, Deane E. Richardson, Vernon Sprague, J. Edmund Welch.

Others in attendance: Wayne Brumbach, Bob Korsgaard, Cedric Dempsey, Carl E. Erickson, James Ewers, Arne L. Olson, Dominick A. Taddonio.

1) The meeting was convened by President Richardson at 10:45. The minutes of the previous meeting were reviewed and approved.
2) President Richardson announced that Ed Welch's proposal to develop a history of the NCPEAM since 1950 to the present had been approved in the Executive Council mail vote.
3) President Richardson announced that he had participated in the meeting of the new College Commission of AAHPER and presented the following observations. John Frederick, Chairman of this Commission, indicated that the major mission of this group would be to zero in on the service program. This involved the establishment of a series of regional conferences on the service program to recruit and develop resource and program materials in support of the service program.
4) President Richardson presented the committee assignments for the current year and the Executive Committee reviewed these assignments.
5) In the absence of Secretary-Treasurer Mueller, President Richardson presented the financial report for the association. It was indicated the cost of the proceedings of the past conference were necessarily paid in advance but the financial situation was still adequate to pay NCPEAM's portion of the QUEST publication costs. Secretary Mueller had indicated that the current membership was at 1,230.
6) Pat Mueller requests that items for the May issue of the Newsletter be sent in as early as possible. He also indicated that the proposed constitutional changes will be mailed out in the immediate future.
7) President-Elect Bischoff reported on the plans for the next national convention. The major concern in this report was the unwillingness of the hotels involved to make firm commitments on room prices as far as two years ahead.
8) Considerable discussion evolved considering the cost of the use of institutional campuses for future conferences. Final consensus on this topic was that the idea should be considered in the future and it could be advantageous under certain conditions.
9) President-Elect Bischoff made a convention program progress report. The essential format presented by Bischoff for this program was approved. The major adjustments involved in the program format was to move the business general session to the second session of the first day, and include a Wednesday evening "cash" social hour for early arrivals. It was further suggested that a Saturday afternoon program of social activities be arranged to hold the membership for the Saturday morning sessions.
10) Bischoff indicated that he will submit the completed program to the Executive Council.
11) Wayne Brumbach as Chairman of the President's Structure Committee presented a progress report for this Committee. An open discussion of the structure proposed by this Committee was held. Gallon moved that the report be received and Brumbach be requested to submit it to the membership. The motion was seconded by Hixson and was approved.

12) President-Elect Bischoff reported on the conversations between representatives of NCPEAM and NAPECW in respect to the joint meeting of the two associations. The general feeling expressed was that both groups wished to continue to retain their identity but future joint meetings might be held for points of dialogue on common issues. The NAPECW indicated they could promote attendance of women at the Pittsburgh meeting if it were deemed desirable and appropriate.
13) The motion was made and passed to adjourn the meeting.

Respectfully submitted,
Vernon S. Sprague
Acting Secretary-Treasurer

EXECUTIVE COUNCIL MEETING
NEW ORLEANS, LOUISIANA
JANUARY 9, 1972

MEMBERS PRESENT: Dave Bischoff, Jim Bosco, Sam Cooper, Art Gallon, Chalmer Hixson, C. E. Mueller, Jesse Parks, Deane Richardson, Vernon Sprague, Ed Welch.

OTHERS IN ATTENDANCE: Gene Asprey, Ralph Ballou, Wayne Brumbach, Max Cogan, George Cousins, Cedric Dempsey, Jim Ewers, Millard Fisher, Bob Korsgaard, Dominick Taddonio.

1) The meeting was called to order by President Richardson at 4:00 p.m.
2) Minutes of the April 4, 1971 meeting were approved as distributed.
3) The following reports were received:
    a. QUEST Report
    b. President's Report
    c. Role of Junior Colleges
    d. Policies Committee
    e. International Relations
    f. Minority Membership
    g. Constitution
    h. Necrology
    i. Summer Exchange
4) MOTION by Cooper, second by Parks, that pictures of deceased members should be included in the PROCEEDINGS. PASSED.
5) MOTION by Gallon, second by Parks, that the President appoint a committee to identify institutions which are interested in participating in summer exchange programs. PASSED.
6) Bischoff recommended an affirmative action program which would provide up to fifty one-year NCPEAM memberships for members of faculty containing minority members. Publications would be limited to QUEST and the NEWSLETTERS. Bischoff will chair a committee to review criteria and will report at this year's Executive Council meeting.
7) MOTION by Bosco, second by Cooper, to accept the Research Committee Report as amended. MOTION by Sprague, second by Bischoff, to amend 2b, 2d, adding a portion of f to d, 2e, and 2g which becomes f. MOTION by Gallon, second by Hixson, to strike If and change g to f. All three motions PASSED.
8) MOTION by Sprague, second by Gallon, to recommend Kansas City, Missouri as the site for the 1973 Convention to be held December 27-29. MOTION by Welch, second by Bosco, to postpone the motion pending determination of a Convention Manager. PASSED.
9) MOTION by Cooper, second by Bosco, to accept the Time and Site Committee

Operating Code. MOTION by Bischoff, second by Parks, to insert "and a Convention Manager" and strike "of the NCPEAM" in item 3a. The amendment and main motion PASSED.

10) MOTION by Bischoff, second by Gallon, to accept action items one through six of the operating codes committee. PASSED. Item seven was postponed for further clarification.

11) MOTION by Parks, second by Gallon, to accept the Membership Committee Report as amended. MOTION by Sprague, second by Parks, to amend action items 2, 4, and 7 and delete items 5 and 6. The amendment and main motion PASSED.

12) MOTION by Bischoff, second by Welch, to accept the proposed 1973 budget presented by the Finance Committee. PASSED.

13) MOTION by Mueller, second by Hixson, to increase the cost of the PROCEEDINGS from five dollars ($5.00) to ten dollars ($10.00). PASSED.

14) MOTION by Hixson, second by Cooper, to adopt the Report of the Structure Committee. MOTION by Hixson, second by Cooper, to amend the report by deleting the first line under "Proposals for Change", page 3, and replacing it with "the Constitution and By-Laws of this Association will be changed to effect the following Association structure effective after the Pittsburgh Convention." The amendment and main motion PASSED.

15) The meeting adjourned at 10:15 p.m.

Respectfully submitted,
C. E. Mueller
Secretary-Treasurer

EXECUTIVE COUNCIL MEETING
NEW ORLEANS, LOUISIANA
JANUARY 10, 1972

MEMBERS PRESENT: Dave Bischoff, Jim Bosco, Sam Cooper, Art Gallon, Chalmer Hixson, C. E. Mueller, Jesse Parks, Deane Richardson, Vernon Sprague, Ed Welch.

OTHERS IN ATTENDANCE: Max Cogan, Cedric Dempsey, Bob Korsgaard, Dick Taddonio.

1) The meeting was called to order by President Richardson at 7:00 a.m.

2) Minutes of the January 9th, 1972 meeting were approved as read.

3) A vote was taken on the postponed MOTION to recommend Kansas City, Missouri as the site for the 1973 Convention to be held December 27-29, 1973. PASSED.

4) MOTION by Welch, second by Bosco, to accept the Historical Records Report. The Executive Council voted to accept a substitute MOTION made by Sprague and seconded by Parks that a photographic historical record of each annual meeting be obtained. The Convention Manager shall receive up to $100 to underwrite the cost of this record. The Operating Code of the Historical Records Committee shall be amended to maintain custody of the photographic record. The substitute MOTION PASSED.

5) Bischoff read a statement relative to securing permission from authors before taping presentations. No action was taken.

6) The Legislative Committee Report was received.

7) MOTION by Hixson, second by Bischoff, to accept the clarified action number seven of the Operating Codes Report. PASSED. MOTION by Hixson, second by Gallon, to add 4j to page 12 of the Operating Codes Manual to read "The President shall appoint a Parliamentarian".

8) The Fiscal Resources Committee Report was received. President Bischoff will appoint a Foundation Committee composed of Past Presidents.

9) The Council adjourned to a Committee of the Whole to discuss the report of the NAPECW-NCPEAM Joint Committee.
10) MOTION by Hixson, second by Welch, that President Bischoff invite members of NAPECW to attend the Pittsburgh Convention and that no registration fees be charged. PASSED.
11) President Bischoff will appoint a Committee to study the question of income tax deductions for Canadian members.
12) The meeting adjourned at 8:30 a.m.

Respectfully submitted,
C. E. Mueller
Secretary-Treasurer

EXECUTIVE COUNCIL MEETING
NEW ORLEANS, LOUISIANA
JANUARY 12, 1972

MEMBERS PRESENT: Bruce D. Anderson, Cedric W. Dempsey, James R. Ewers, Millard Fisher, Paul Hartman, John A. Lucas, Carlton R. Meyers, Nicolaas J. Moolenijzer, C. E. Mueller, Arne Olson, Jesse L. Parks, Deane Richardson, Vernon Sprague, Dominick Taddonio.

OTHERS IN ATTENDANCE: Bob Korsgaard, Karl C. H. Oermann, Wayne Osness, Carl A. Peterson.

1) The meeting was called to order at 7:00 a.m. by President Bischoff.
2) Minutes of the January 10th, 1972 meeting were approved as read.
3) James Stevens, North Carolina University, was appointed Chairman of the Affirmative Action Program for minority memberships.
4) Wayne Osness was appointed Convention Manager for the Kansas City meeting.
5) MOTION by Sprague, second by Parks, to accept the following criteria, item 2cl, for the Research Operating Code "The President shall solicit recommendations of qualified invididuals from the past chairman of the Research Committee.
    a) One published article in a refereed journal or one research paper presented at a professional convention other than a dissertation.
    b) Attendance at two of the last five NCPEAM Conventions.
    c) A demonstrated interest in research." PASSED.
6) MOTION by Richardson, second by Sprague, to accept the NCAA—AAHPER—NCPEAM Joint Committee Report. MOTION by Ewers, second by Moolenijzer, to table the motion. PASSED.
7) MOTION by Parks, second by Anderson, to suspend the rules. PASSED. Bischoff suggested that where two section meetings are scheduled for the Pittsburgh Convention, the Chairman should be responsible for one and the Chairman-Elect the other. MOTION by Sprague, second by Dempsey, that the Nominating Committee be charged with the responsibility of providing nominations for all new positions under the reorganization and that they be voted on at the Pittsburgh Convention. PASSED.
8) MOTION by Sprague, second by Richardson, that the Operating Code be amended to change the number of members on the Resolution Committee from three to six. PASSED.
9) MOTION by Richardson, second by Ewers, that the Operating Code be amended to reduce the number of members on the Convention Program Committee from six to four, including the President, President-Elect, Secretary-Treasurer, and the Convention Manager. PASSED.
10) Oermann reported that the 76th Annual Convention will be held at the Hilton Hotel in Pittsburgh on January 6th-9th, 1973.
11) The next Executive Council meeting will be held in Houston at the AAHPER meeting, Sunday, March 23rd, 1972.

12) The meeting adjourned at 8:30 a.m.

Respectfully submitted,
C. E. Mueller
Secretary-Treasurer

Minutes, Association Business

FIRST GENERAL SESSION
NEW ORLEANS, LOUISIANA
JANUARY 10, 1972

1) The meeting was called to order at 10,30 a.m. by President Richardson.
2) Hixson, Chairman of the Nominating Committee, presented the following nominations:
    a) President-Elect .... Bob Korsgaard and Vernon Sprague
    b) Member-At-Large .... Larry Locke and Jesse Parks
    c) Secretary-Treasurer .... C. E. Mueller
3) The results of the election were as follows:
    a. President-Elect .... Vernon Sprague
    b) Member-At-Large .... Jesse Parks
    c) Secretary-Treasurer .... C. E. Mueller
4) The Secretary-Treasurer's report was approved as read.
5) The following reports were received:
    a) Constitution—Cearley
    b) Convention Program—Bischoff
    c) Historical Records—Welch
    d) International Relations—Drews
    e) Legislative—Cousins
    f) Membership—Asprey
    g) Operating Code—Cogan
    h) Policies—Schendel
    i) Public Relations—Watt
    j) Research—Singer
    k) Necrology—Ballou
    l) Fiscal Resources—MacLeay
    m) Minority Membership—Henry
    n) Role of Junior Colleges—Fisher
    o) Summer Exchange—Miller
    p) NAPECW-NCPEAM—Pelton
    q) QUEST Advisory Board—VanderZwaag
6) MOTION was made and seconded to approve the 1973 budget. PASSED.
7) MOTION was made and seconded to accept the Necrology Committee Report. PASSED. Deceased members include Alfred Barr, Oliver Cornwell, John Heldman, Jr., and Eugene Hill.
8) MOTION was made and seconded that the 77th Convention be held in Kansas City, Missouri on December 27th-29th, 1973. PASSED.
9) MOTION by Brumbach, second by Anderson, that the Constitution and By-Laws of this Association will be changed to effect the following Association structure effective after the Pittsburgh Convention:

MOTION by Matthews, second by Bird, to amend the motion by removing 4e, "President of WCMPES, or his designated representative" and replacing it with "Member-at-Large". PASSED.

MOTION by Miller, second by Serfass, to amend the motion by eliminating 4e, "Member-at-Large". PASSED.

MOTION by Husman, second by McAdam, to amend the motion by having the WCMPES President serve as a non-voting, liaison member member of the Executive Council. DEFEATED.

The main motion PASSED by a 98% affirmative vote.

10) The meeting adjourned at 11:50 a.m.

Respectfully submitted,
C. E. Mueller
Secretary-Treasurer

SPECIAL MEETING
NEW ORLEANS, LOUISIANA
JANUARY 11, 1972

1) President Richardson called a special meeting to order at the Convention luncheon.
2) McAdam MOVED that the following resolution be adopted:

   Whereas Physical Education activity courses in some places across the country are being challenged and reduced, and

   Whereas the need for learning new physical skills appropriate to improving the quality of human life is particularly critical in this day of advanced technology, and is similar to the need for learning skills in the other arts,

   Be it resolved that NCPEAM support the principle that institutions of higher education provide instruction in activity and sports skills and that classes carry academic credit.

   Seconded. PASSED.

   He also suggested that this resolution be released to Associated Press, United Press, and other wire services and that letters be sent to State Boards of Higher Education and Institutional Presidents.
3) The meeting adjourned at 12:45 p.m.

Respectfully submitted,
C. E. Mueller
Secretary-Treasurer

Standing Committees

CONSTITUTION COMMITTEE

Purpose: This is for the President's Committee in particular, or for other committees if there is a special purpose.

1) Members of the committee were written and requested to study carefully the Constitution and By-Laws for possible changes. Each member was for-

warded a copy of the Constitution and By-Laws and the Constitution Committee Operating Code. The committee has no changes to recommend.

2) Each committee member was forwarded a copy of the Structure Committee's Proposals.

3) The committee was forwarded a letter from Robert Korsgaard, Parliamentarian, which explained how the Constitution and By-Laws could be affected by the Structure Committee's proposal.

4) The committee was also given copies of letters of correspondence between myself and President Dean Richardson, Wayne Brumbach and Robert Korsgaard.

5) Advised the Operating Codes Committee of the deletion of Item 3-i from Constitution Committee's Operating Code.

6) Made changes in the Constitution and By-Laws in accordance with the action of the Executive Council Meeting, December 30, 1970, Portland, Oregon.
   a) Article VIII, Section 1 of the By-Laws amended
   b) Article VII of the Constitution amended by adding Section 2
   c) Amended the Constitution Article IV, Section 1 of By-Laws quorum present
   d) Amended Article IX, Section 4 of the By-Laws by changing Time and Site Committee from a President's Committee to a Standing Committee.

7) Studied and discussed the possible Constitution and By-Laws changes which would be necessary as a result of the Structure Committee's proposal. The Constitution Committee thinks it will take more time than will be available, at the New Orleans meeting, to do an efficient job of implementing the report of the Structure Committee. Therefore, the Constitution Committee recommends that changes voted upon at the New Orleans meeting take effect at the close of the Pittsburg meeting.

Respectfully submitted,
Jesse Cearley
Chairman

FINANCE COMMITTEE

PROPOSED BUDGET FOR 1973

	1972	1973
BALANCE BROUGHT FORWARD		
1) Estimated Balance September 1, 1971, 1972	$ 250.00	$ 900.00
RECEIPTS		
2) Membership Dues (1150—1972; 1200—1973)	13,800.00	14,400.00
3) PROCEEDINGS Sales	1,500.00	1,600.00
TOTAL RECEIPTS	$15,500.00	$16,900.00
EXPENDITURES		
4) PROCEEDINGS	$ 4,300.00	$ 4,300.00
5) QUEST (@ $3.00....1150—1972; 1300—1973)	3,450.00	3,900.00
6) NEWSLETTERS	400.00	400.00
7) Annual Meeting	1,400.00	1,500.00
8) General Operations	3,000.00	3,400.00
9) President's Contingency Fund	500.00	500.00
10) Secretary-Treasurer's Fee	1,000.00	1,000.00
11) Officers' Travel Fund	600.00	600.00
TOTAL EXPENDITURES	$14,650.00	$15,600.00
12) Estimated Balance August 30, 1972, 1973	$ 900.00	$ 1,300.00

Respectfully submitted,
William Hughes
Chairman

HISTORICAL RECORDS COMMITTEE

Purpose: The Executive Council met in Portland, Oregon, on December 27, 1970, and recommended to "develop and preserve a photographic history of highlights of each Annual Meeting, which shall become a part of its historical documents." A motion was passed to refer this question to the Historical Records Committee to determine the feasibility of the proposed project.

Activity: Through correspondence, members of the Historical Records Committee have considered the matter. The report is as follows.

1) A majority of the committee is of the opinion that a photographic history of each Annual Meeting would be worthwhile.
2) A commercial photographer would charge between sixty and one hundred dollars per day. If a commercial photographer is employed, then from an economical standpoint, the Association would want to use him for only one day. This would have the disadvantage of restricting picture-taking to one day.
3) If a camera enthusiast within the Association would take the responsibility of shooting the pictures, we could have coverage for all days of the convention. This would cost approximately $55 for film, processing, and proofing. Some compensation should be provided to this member, as the task of taking pictures would interfere with his attendance at various meetings of his choice. He should be paid forty or fifty dollars, so this would run the cost up to around $100.
4) Regardless of the plan used, we have in mind the taking of 60 shots in order to get 20 good 8 x 10 pictures.

ACTION: It is the recommendation of this committee that the pictorial history project be undertaken, provided the Executive Council will furnish $100 per year.

Respectfully submitted,
J. Edmund Welch
Chairman

INTERNATIONAL RELATIONS COMMITTEE

1) Limited correspondence from foreign countries has been appropriately processed.
2) Travel fund restrictions resulted in all of our business to be conducted by mail.
3) Business concluded this year was the establishment of the convention program for New Orleans.
4) Other items of interest to the committee are:
    a) Post-doctoral studies in foreign countries.
    b) A center for comparative physical education.
    c) Translations of foreign manuscripts.
5) In all candidness, a committee that meets once a year and conducts its business by mail or telephone can hardly be expected to produce on-going or continuing projects with a high degree of success.
6) More realistically, every effort should be made to make the annual convention a major success in terms of international relations. I would suggest invitations to leaders in physical education from our President to known professionals of good reputation in foreign lands.

Respectfully submitted,
Fred Drews
Chairman

MEMBERSHIP COMMITTEE

The major task of the committee was that of recruiting new and lapsed members and obtaining recommendations for emeritus membership. In accomplishing this task, each committee member was assigned a number of states from which to recruit and, for each state assigned, was asked to contact the state chairman (appointed by President Richardson) and have him in turn contact a responsible faculty member from each of the universities, four-year colleges, and community or junior colleges in the state to serve as the NCPEAM membership solicitor for his institution. To assist in the conduct of the membership campaign, the Chairman of the Membership Committee prepared a sample letter which a committee member might use to contact his state chairmen, a sample letter which a state chairman might use to contact his institutional membership solicitors, and a sample membership solicitor letter to aid in the recruitment program at the various institutions within a state. A form for recommending emeritus members was also prepared and submitted through channels to the institutional membership solicitors. Upon request by the committee chairman, Secretary-Treasurer Mueller sent membership flyers to each committee member for distribution to their state chairmen.

In addition to the task of membership recruitment, the committee, upon the request of President Richardson, studied the possibility of formulating a life-membership plan for the Association. It was fortunate for the committee that Dr. Bob Korsgaard, one of our members who has had a long-standing interest in providing the members of the NCPEAM with the opportunity for life membership, had sent a memorandum last year to Past President Hixon, three committee chairmen, and Secretary-Treasurer Mueller in which he presented a number of reasons for offering a life membership along with a number of suggestions pertaining to fees and plans. Because of Dr. Korsgaard's efforts, the committee was spared a considerable amount of groundwork. Each committee member, after receiving a copy of the memorandum for thorough review and study, was asked by the chairman to indicate in writing any favor he might have toward any one of the life-membership plans presented in the memorandum and/or to reveal any plan, idea, or consideration **not** presented in the memorandum. The responses received from the committee members were then organized into a list of **Considerations for a Life-Membership Plan,** and the list was sent to the committee members for a **yes** or **no** vote relative to each of the considerations presented. Based on the results of the committee vote, the following recommendations are made relative to a life-membership plan for the NCPEAM:

1) The NCPEAM should provide its members an opportunity for life membership.
2) The life-membership fee will be 20 times the annual dues.
3) An option of making time payments in equal installments over a period of five years should be allowed for payment of the life-membership fee.
4) If time payments are made, the fee for life-membership will be 5 per cent more than the base fee.
5) Ninety-five per cent of the life-membership fee will be placed in a special account and only the interest or earned income will be used for current operating expenses.

RECOMMENDATIONS FOR EMERITUS MEMBERSHIP IN NCPEAM

NAME	INSTITUTION
Lester M. Fraley	University of Maryland
Charles J. Hart	Brigham Young University
Gilbert L. Hermance	Rice University
Fredrick J. Holter	West Virginia University
John E. McCutcheon	University of Toronto
Frank J. Misar	Stevens Institute of Technology
Hartley D. Price	Florida State University
Don C. Seaton	University of Kentucky

Respectfully submitted,
Gene M. Asprey
Chairman

NECROLOGY COMMITTEE

On the 31st of March each member of the Committee was sent a letter informing them of the charge to the committee. It was also suggested that the members of the committee attempt to acquire a picture of the deceased colleague in an attempt to make the memorial presentation more meaningful. Each member of the committee was assigned a geographical area to canvas for deceased past and present members.

In September a follow-up letter was sent to each member. In October letters were sent to President Richardson and to Secretary-Treasurer Mueller to ascertain if they were in receipt of names of deceased members not located by the members of the committee.

Currently, five deaths among the NCPEAM membership during 1971 have been reported. They are: Alfred R. Barr (1948); David K. Brace (1924); Oliver Cornwell (1931); John Heldman, Jr. (1948); Eugene L. Hill (1950).

In addition, memorial material was received concerning Sidney Jenkins (honorary member) whose death was reported at the 1970 meeting but whose memorial statement was not received in time to be placed in the 1970 **Proceedings.** This memorial statement has been prepared and will be in the 1971 **Proceedings.** A memorial statement for each of the above has been prepared and the memorial certificates will be sent to the next of kin.

The chairman wishes to express his appreciation to the other members of the committee for their assistance and to other members, associates and friends who assisted in the work of the committee during the past year.

Respectfully submitted,
RALPH B. BALLOU, JR.
Chairman

Alfred R. Barr (1908-1971)

Mr. Alfred R. Barr, known as "Red" by his friends, was born on August 14, 1908 in Avon, Ohio and passed away on Saturday, June 12, 1971 in El Paso, Texas. He is survived by his wife, the former Miss Helen Paul Cleaver of Philadelphia; four children, Roberta, a graduate of SMU; William and Alan, currently enrolled as SMU students, and Betty, a student in the 9th grade, two brothers, Chester and William, and his mother, Mrs. Bertha Barr of Avon, Ohio.

Coach Barr was graduated from high school in 1926 and was valedictorian of his graduating class. He received his BA degree from Oberlin in 1930 and his master's degree from New York University in 1937. While a student at Oberlin he earned varsity letters in baseball and basketball and was captain of the basketball team during his senior year. After graduation from Oberlin he taught physical education and coached for 12 years at Connelsville high school in Pennsylvania. He joined the V-5 program in the U.S. Navy in 1942 and served until 1946, when he joined the reserve, where he served until 1963 when he retired with the rank of Commander. He joined the SMU faculty in 1946 as instructor of physical education and dormitory director and at the time of his death he was head swimming coach and professor of physical education. Throughout his career at SMU he continued to teach in the physical education program in addition to coaching the varsity swimming team. He also served as director of intramural athletics for men for several years and during this period he developed one of the finest intramural programs in the country.

In his 25 years in Dallas and at SMU Coach Barr established himself as a friend of youth, an excellent teacher and an outstanding coach. His swimming teams won 17 Southwest Conference Championships, fifteen of them in succession during the past 15 years, and his teams finished in the top ten nationally eight times in the past nine years. He coached the winning United States team in the 1963 Pan American Games in Brazil and was an alternate coach for the men's swimming team in the 1968 Olympic Games. He represented the USA and the AAU in conducting swimming clinics in several foreign countries and served as host to national swimming championship events held in the SMU pool. He was a member of the NCAA Swimming Committee, served as chairman of the Southwestern AAU Men's Swimming Committee for the past 21 years, served as a member of the NCAA Swimming Rules Committee for several years, two as chairman, and at the time of his death was president of the College Swimming Coaches Association of America. The new outdoor Olympic size swimming pool in the process of construction on the SMU campus is to be named the Alfred R. Barr swimming pool. He was named Sportsman of the year by B'nai B'rith in 1962, and in 1971 he received the Big D Award from the All-Sports Association of Dallas.

In addition to his success as a coach of varsity swimmers Mr. Barr was an enthusiastic, competent and sympathetic teacher of beginning swimmers. He developed an outstanding summer program for beginning swimmers and it became so popular that parents stood in line for hours to register their children in his classes.

While Coach Barr's primary interest in the athletic world was swimming, he did not limit himself to this activity. He was a considerate and understanding father and devoted much time to his family. In addition, he was active in community affairs, serving as a member of the YMCA Board of Directors, the Board of Stewards of Highland Park United Methodist Church, and as a consultant to many humanitarian projects involving the welfare of people in the community. He was an active participant in University activities serving on many committees, including two terms on the Faculty Senate.

Coach Barr was unique among coaches in that he never lost interest in the welfare of the less skilled performer. He spent many hours working with beginning swimmers and exhibited as much interest in their progress as with his more talented varsity swimmers. His continued interest in physical education for all students is evidenced by the fact that he continued to teach students in regular classes throughout his career at SMU and maintained active membership in the American Association for Health, Physical Education and Recreation and in the National College Physical Education Association for Men from 1948 to 1971.

While Coach Barr compiled an envious record in the field of coaching he will be remembered by all with whom he came in contact as a gentleman with a dedicated interest in his fellow man and a willingness to give his utmost so that all students who came under his leadership could reach their maximum potential. As such he is worthy of special recognition by his colleagues at Southern Methodist University and this statement represents an effort on our part to express our appreciation for the contribution he made to his fellow man in the time he spent with us.

David K. Brace (1891-1971)

Dr. David Kingsley Brace, Graduate Professor Emeritus and former chairman of the Department of Physical and Health Education of the University of Texas at Austin, died in a local hospital in Austin, Texas, December 27, 1971 after a prolonged illness. He is survived by his wife, two daughters and two grandchildren.

Born in Lincoln, Nebraska on September 4, 1891, David Brace received his high school education in Portland, Oregon where he lettered in football and captained the track team. He received his A.B. degree from Reed College where he again excelled in football and track. He was elected captain of both of these teams. In 1921 he received the M.A. degree from Columbia University and his Ph.D. from the same institution in 1927.

The professional career of Dr. Brace has taken him from the junior high schools of Salem, Oregon where he taught general science and physical education to the Hhihli Provincial Higher Normal College, Pactingfu, China where he was the Director of Physical Education; to Peking, China where he served as Director of Physical Education and Department Head at Tsing Hua College. After returning from China he taught at Columbia University and then went to Texas where, in

1926, he established the Department of Physical and Health Education at the University of Texas at Austin. For 32 years, 1926-1958, he served as its Chairman. In addition, he has taught summer sessions at the University of Southern California, Boston University, the University of Iowa, Sul Ross State Teachers College, and the University of Colorado.

Dr. Brace's experience has not been limited to the field of teaching. He has conducted various surveys and has been active in field work. In 1915 he won the Municipal League Prize in Portland, Oregon, on his **The Family and Socialized Play**, a Survey of Family and Public Recreation. He has been a member of survey staffs at Baltimore, Maryland; Stanford, Connecticut; Manhattan Branches of the Y.M.C.A., New York City; and Goose Creek and Waco, Texas. He has conducted school evaluations at Orange, Port Neches, Beaumont, Victoria, El Paso, and Kingsville, Texas. He served for many years on the Parks and Recreation Board for the City of Austin. During World War II he served as State Supervisor of Physical Fitness, Health, and Emergency Medical Service, Texas Civilian Defense (1942-44), as Principal Specialist in Physical Fitness, U.S. Office of Education, and the Committee on Physical Fitness (1943-44).

Dr. Brace has been one of the pioneers in research in physical education, particularly in the area of testing. The **Brace Motor Ability Test** was the first of its kind to be developed through modern scientific methods. He also published in 1924 the first achievement tests in baseball and basketball and was the first to apply the T-scale technique in the construction of achievement scales for athletic skills. He continued his work in skill testing even after his retirement and was the person primarily responsible for the skill tests manuals currently available from the AAHPER. Other areas in which he was a pioneer in research include the use of the practice test in motor learning studies, and the use of the critical incident technique in the development of standards in sportsmanship in athletics and physical education. He published more than one hundred articles and was the author or contributor to ten books.

Unusually active in professional associations, Dr. Brace held offices and served on committees in most of the twenty organizations in which he held membership. Serving as TAHPER President for three terms from 1927 to 1930, he was instrumental in getting the Texas Legislature to pass a law requiring the teaching of physical education in the public schools. He was President of the Southern District of the AAHPER in 1933 and was one of the founders and first Chairman of the Research Council of the AAHPER in 1950-52. In 1939 he became a Fellow in the American Academy of Physical Education and served as its President in 1952-53. He was a Charter Fellow of the American College of Sports Medicine, founded in 1954.

In recognition of his achievements, Dr. Brace received the Honor Award of the AAHPER in 1933, of the Southern District in 1951, and of the TAHPER the first year it was established in 1956. He was cited in 1960 by the American Recreation Society for his promotion of recreation in the South and Southwest, and in 1961 the National Recreation Association bestowed on him a Certificate of Appreciation. In 1963 he received the highest award that AAHPER can bestow on its members, the Luther Halsey Gulick Award and, similarly, from the American Academy its highest award the Clark W. Hetherington Award. He has been listed in Who's Who in America and in Who's Who in American Education.

A devoted husband and father, Dr. Brace maintained a keen interest in the community. A man of vision and foresight he was well liked and respected by his colleagues. His career had a profound influence on the development of many individuals, a great number of whom are today's state and national leaders. Few individuals can equal his achievements in research, teaching, and administration or his contributions in service to the profession.

Oliver K. Cornwell (1896-1971)

Dr. O.K. "Ollie" Cornwell, former Chairman of the Department of Physical

Education at the University of North Carolina at Chapel Hill, died Wednesday morning, November 18, 1971, following an extended illness.

Oliver Kelley Cornwell was born October 10, 1896, in South Charleston, Ohio. He was educated in the public schools of South Charleston from which he graduated in 1914. During the 1915-1918 years he attended Cedarville College, Cedarville, Ohio participating in basketball and baseball, a continuation of his South Charleston varsity sports experience. He served as an infantry sergeant in the Army during 1918-1919 and, at the close of the war, returned to Springfield, Ohio to serve as an elementary school principal.

In June of 1921 he graduated from Wittenburg College and then accepted a position as Director of Athletics and Physical Education at the Springfield (Ohio) High School and was the City Director of Recreation.

Three years later, in 1924, he married Florence Elizabeth Ryle, an instructor of physical education, and they had three children: Samuel Cornwell, Robert Ryle Cornwell and Mary Elizabeth Cornwell.

"Big Doc" became a member of the Wittenburg faculty in 1927 where he taught mathematics, education and served as Director of Health and Physical Education. In 1931, after writing the first Master's thesis at Ohio State in Physical Education, he was awarded the Master of Arts degree from that institution. During the 30's he taught and studied for his doctorate at Columbia Teachers College. In 1935 he joined the University of North Carolina at Chapel Hill as Professor of Physical Education and Director of the Department of Physical Education, a position which he "held, upheld, and uplifted until his retirement in 1966."

"Ollie" joined the National College Physical Education Association for Men, then the CPEA, in 1931 and served as its President in 1941. A year before, in 1930, he had joined the American Association for Health, Physical Education and Recreation and served on many committees. In 1944-1945 he served as President of the Southern District of the AAHPER. Active in the National Collegiate Athletic Association, he served on the Eligibility Committee, Executive Council and as Vice-President while helping to form the Atlantic Coast Conference, a Conference in which he functioned as Secretary-Treasurer, Vice-President, and, in 1961, President. He also held membership in the NEA (46 years), the American Student Health Association (37 years), the North Carolina Education Association (31 years) and belonged to Kappa Phi Kappa and Phi Delta Kappa fraternities.

Author of many professional Articles, he also introduced the movie camera to football programs at several North Carolina colleges, organized the North Carolina School Health Coordinating Service and assisted in the organization and conduct of physical training programs for the several Navy programs during World War II. He wrote the original program for the Physical Training and Athletic School for the Army Ground Forces and in 1945 he established the Army Athletic Staff School in the European Theater of Operations at Cite Universitaire in Paris and also helped start the Physical Training and Athletic School for the Army at VMI.

In 1948, Catawba College awarded him the honorary degree of Doctor of Pedagogy. The American Association for Health, Physical Education and Recreation recognized him in 1953, and the North Carolina Association presented him its first Honor Award in 1966. In this same year a football program and the ACC Indoor Games Booklet were dedicated to him and he was given a testimonial dinner by his professional contemporaries. He was a recipient of many other awards.

A capable administrator, straight shooter, hard worker and a professional leader, Dr. Cornwell, whose greatest honor was seeing his students go into the field and serve well, leaves a legacy of service and professional concern. His career can perhaps be summed up in this tribute taken from a memorial prepared by members of the faculty in the Department of Physical Education at the University of North Carolina at Chapel Hill. It reads,

> We are a better profession for his having been with us. Those who know men—call him great. I see no reason to argue with that.

John Heldman, Jr., (1905-1970)

Dr. John Heldman, Jr., known by his students and colleagues as "Dr. John," and by his baseball fans, his close friends and fishing cronies as "Jolly John" died of a heart attack on December 21st, 1970 at the age of 65. Born at Petersburg, Ohio on July 24, 1905 he was married to the former Ruth E. Gall. He is survived by his widow, two daughters and several grandchildren. He was a member of the Presbyterian Church.

Originally from Struthers, Ohio, Dr. Heldman matriculated at Oberlin College, receiving his AB degree in 1928. In 1931 he received the AM degree from Columbia University and in 1953 his doctorate in Health and Physical Education and Education Administration from Indiana University.

A member of the faculty of the University of Louisville since 1936, Dr. Heldman became Athletic Director in 1942 and Head of the Department of Health, Physical Education and Recreation in 1943. He was to have retired in June.

Long a familiar figure in collegiate baseball, Dr. John coached the University of Louisville team for 31 years with a total of 356 wins, 163 losses and 2 ties. He led his team through an undefeated season in 1957, and in 1964 to the finals in the Missouri Valley Conference, losing 6-5 to St. Louis. His many other activities in the world of collegiate sports included 45 years as a basketball official.

During his long coaching and teaching career Dr. Heldman won many awards and honors, notably a Merit Award from the NCAA-AACBC for "A Quarter Century of Leadership and Devotion to College Baseball;" the "W. H. Mustaine Award for Meritorious Service to the Profession" in 1965; and the "Helms Foundation Hall of Fame Award to Baseball Coaches" in 1966.

Dr. Heldman, a colleague in this Association since 1948, was active in many of the professional organizations serving two terms as President of the Kentucky Association for Health, Physical Education, and Recreation—1942-43, 1943-44, and as Chairman of the K.A.H.P.E.R. Legislation Committee in 1964. He spent the summers of 1961 and 1962 conducting Intramural Sports Clinics in Hawaii, Japan, Okinawa and Korea for the U.S. Army of Hawaii and the U.S. Army of the Pacific.

Those of us who have been in close association with him these many years will remember Dr. Heldman for his genuine love for the University Community and for his sustained interest in former students long after they left school. His contributions to his Department at the University of Louisville and to the field of Health, Physical Education, and Recreation, both at state and national level, will be an influence and an inspiration for some time to come. We share with all who knew him a great sense of personal and professional loss.

Eugene L. Hill (1906-1971)

Dr. Eugene L. Hill of 205 Ames St., Normal, Illinois was born at West Salem, Illinois, May 25, 1906 and passed away in Normal, Illinois on January 18, 1971. On October 14, 1933 he married Miss Francis Kingery and is survived by his widow and two daughters, Miss Honore Hill of Normal, and Mrs. Deborah Frock of Greensburg, Pennsylvania.

Eugene L. Hill, a colleague in this Association since 1950, matriculated at Illinois State University and was graduated from that institution in 1930 with a BEd. degree. Three years later the State University of Iowa conferred upon him the MA degree and in 1950 he received the EdD degree from Colorado State College.

Upon his graduation, Professor Hill began a long and illustrious career at his alma mater. Perhaps the word that most adequately describes his career is the word "first". He was the first cross country coach, the first wrestling coach, the first intramural director, the first director of campus recreation and the first, and only, tennis coach to serve the University. Along with all these duties he found time to direct the Illinois State University Cheerleader School.

During his long tenure as coach his teams distinguished themselves especially in tennis and wrestling. In tennis his teams won twelve conference championships and compiled a 281 won and 127 lost dual meet record; in wrestling six conference championships were won and a 138-76-6 dual meet record posted. The wrestling program was organized by Dr. Hill in 1933. Although his athletic record is outstanding, perhaps his greatest contribution was made in his concern for, and challenge to, his students many of whom followed him into the profession of physical education.

He was active in local, state, and national professional organizations as well as in civic affairs; he was a founding member of the Bloomington-Normal Tennis Patrons Association and served as a sports official for high school area games. He was a member of the Unitarian Church and the Normal Optimist Club. During World War II he served with the American Red Cross in the South Pacific and has been an advisor to the Normal Recreation Department.

Upon his death the Academic Senate of Illinois State University adopted a resolution which reads in part:

> Dr. Hill's contribution to the personal growth of young men will endure through the efforts of hundreds of former students, now teachers and coaches in the Illinois community. The University and the members of his department particularly, are grateful for his loyal service..

Sidney Jenkins (1895-1969)

Sidney Jenkins, Associate Professor of Physical Education and Director of Intramurals at Denison University, died August 9, 1969 at the Licking County Memorial Hospital, Newark, Ohio. Born August 2, 1895 in Cambridge, Ohio, he was married to the former Mary Gibson. He is survived by his wife, two daughters, Mrs. Paul H. Eliot of Atlanta, Georgia, and Mrs. Robert K. Arnold of Worthington, Ohio; two brothers, four sisters and eight grandchildren.

Enrolling in Denison University in 1914 he established himself as one of the best basketball players of his time. In his junior year he was selected as an all-Ohio guard and captain of Denison's team. World War I interrupted his college career and he enlisted in the American Expeditionary Force, and served in France attaining the rank of Second Lieutenant. Following the cessation of hostilities he served eighteen months in the army of occupation.

Returning to Denison he resumed his athletic career and won letters in basketball, football and baseball. In 1920 he was selected captain of the all-Ohio cage squad. Upon graduation he was hired by Denison as first assistant to the Director of Athletics, Walter J. Livingston. For a year he left Denison to become Director of Athletics at his Alma Mater, Cambridge High School. But the call of Denison was strong and so he returned in 1922 to become the freshman basketball coach, a position he retained for fifteen years before he became head coach of basketball.

In 1943, after a successful tenure as head basketball coach, he became Director of Intramural Sports. From a three sport program Mr. Jenkins guided the destiny for the intramural program to a fifteen sport program, a program in which more than two-thirds of the male students participate. To Sid the intramural program is designed to achieve a balance between quality competition and unlimited participation. In 1927 the first fraternity champion was selected, a policy continued every year except the war years.

The faculty and students of Denison University will miss the dedication of Sidney Jenkins but his spirit will live on through the continuation of his programs developed in the interest of the students.

OPERATING CODES COMMITTEE

Purpose

a) Assist the Executive Council and committees of the association in developing and maintaining efficient operations.

b) Maintain an up-to-date Operating Manual.

Activities

Business of the Operating Codes Committee of the National College Physical Education Association for Men was conducted in accordance with the operating code of the committee found in the Operating Manual of the NCPEAM. The Operating Codes Committee recommends the following changes to the Executive Council and the membership. It should be noted, however, that if the structure of the NCPEAM is modified (see Structure Committee Report, December 1971) operating codes would need to be developed for the new structure. Therefore, some of the changes recommended may not be needed or may require further revision to be in accord with the new structure.

1) The entire manual be revised to adhere to correct rules of capitalization. Authorities differ on interpretation of these rules; **consistency should be the goal.** These revisions should be made when other major revisions become necessary. It is recommended that the association seek advice on capitalization from an expert in English grammar. (By the way, there appear to be inconsistencies in Robert's Rules of Order; for example, the treatment of the word "board" for "Board.")
2) Where necessary, operating codes be revised so that all purposes start with a verb to be consistent with rules of writing behavioral objectives and so that codes follow a similar format. On page 34, 2a. should read: "Inform officers and members of the association through the office of the president . . ." It now reads: "Through the office of the President to inform Officers and members of the association . . . " Delete the word "To" from the beginning of 2b. and 2c. on page 34 and from the beginning of 4b. 1, 2, and 3 on page 35. Delete "To" from Ia., Ib., Ic., and Id. on page 41.
3) The provision for amendment of the Legislative Committee on page 36 be replaced by a simpler statement: (a.) "This operating code may be amended by a majority vote of the committee subject to the approval of the Executive Council." The provision as now written seems redundant. A provision for amendment of the Operating Code of the Executive Council should be added to read: (36) "This operating code may be amended by a majority vote of the council subject to the approval of the membership." This would become item 6 on page 10. Finally, a provision for amendment to the Operating Code for the Quest Advisory Board should be developed in conjunction with the representatives of the NAPECW.
4) The proposed Operating Code of the Research Section be accepted. (Attached)
5) The proposed Operating Code for the Time and Site Committee be accepted. (Attached)
6) Two changes in the Operating Code for the Executive Council were suggested by President Deane R. Richardson and are recommended by the committee. On page 9, paragraph 2, **Purpose** add: "(e) Making appointments to fill vacated offices not otherwise provided for." The conjunction "and" would be moved to the end of (d) instead of at the end of (c). Adding the above statement would make the paragraph identical to Article II, section 2 of the bylaws, as intended. On page 9, the first sentence in 4a. should be deleted and replaced by: "The Executive Council shall hold at least one meeting at the time of the annual meeting" This will bring item 4a. in harmony with the bylaws, Article VII, section 1. The first sentence of 4a. now reads: "There shall be an annual meeting of the Council at a time and place designated by the President."
7) The following recommendations are in response to a letter to Burris Husman from Jack Schendel, Chairman of the Policy Committee. It was referred to the Operating Codes Committee for action this year. On page 9 delete the last sentence in 4d. This sentence provides for the appointment of a convention manager by the Executive Council which is in conflict with 4g. on page 12 which provides for appointment by the president. On page 20, items 7b. 2. and 3. may have the wrong dates for dues notices since they are now paid on September 1. Pat Mueller should recommend new dates, if appropriate. On page

21, 8g. and h., substitute the term "emeritus" for "honorary." Emeritus is now the proper term. The Executive Council should consider deleting item 3b. on page 22 which requests that section chairmen file an annual report of activities during the year, of the work of their sections. Since sections primarily conduct programs at the convention it may be that the only report they need to make concerns the convention program. On page 35, 4b. 1 on the second line, substitute the word "impending" for the word "informing." Now it makes sense. Finally, on page 31, 3f., the reference to page 51 for procedures seems inappropriate. Therefore, delete the second sentence in 3f. and rewrite the first sentence to read: "When requested, the committee shall organize a program for presentation at the annual meeting, the chairman, following the usual procedures for submitting a program and securing a time and place for the meeting."

The committee expresses its sincere appreciation to those members who have given us their time and assistance during the year. The chairman wishes to express his appreciation for the excellent cooperation he has received from his colleagues on the Operating Codes Committee.

Respectfully submitted,
Max Cogan
Chairman

PROPOSED OPERATING CODE RESEARCH COMMITTEE

1) Purpose:
   a) Determine the major areas for needed research in physical education as identified by the NCPEAM membership
   b) Initiate research projects which lend themselves well to a multi-institutional approach.
   c) Encourage the application of research by interpreting and disseminating information and materials acquired through research (not covered by other organizations or projects).
   d) Inform researchers and practitioners of projects completed by the committee through the medium of publications, mimeographed materials, and the like.
   e) Establish an effective liaison relationship with the Research Council of AAHPER, the Higher Education Commission of AAHPER, and NAPECW.
2) Organization:
   a) The committee shall be a standing committee of the NCPEAM.
   b) The committee shall consist of seven (7) persons, ideally representing geographical distribution.
   c) Members shall meet the membership qualifications set up by the Research Committee. The President shall solicit recommendations of qualified individuals from the past chairman of the Research Committee.
      a) One published article in a refereed journal or one research paper presented at a professional convention other than a dissertation.
      b) Attendance at two of the last five NCPEAM Conventions.
      c) A demonstrated interest in research.
   d) Members shall be appointed by the president for a three year term with three new members appointed one year and two new members appointed in each of the next two years as other members have their term expired.
   e) The chairman shall be appointed by the president.
   f) Resignations from the committee shall be presented to the president who shall appoint a successor to complete the unexpired term.
3) Conduct of Business:

a) The business of the committee shall be conducted at the annual meetings of the NCPEAM and at other appropriate and convenient times.
b) Projects undertaken by the committee shall be developed through correspondence, telephone calls, or meetings.

4) Amendment:

This operating code may be amended by a majority vote of the committee subject to the approval of the Executive Council.

PROPOSED OPERATING CODE TIME AND SITE COMMITTEE

1) Purpose:

Identify and recommend the time (dates) and site (city or other location) of the Annual Meeting of the NCPEAM.

2) Organization:
  a) The committee shall be a standing committee of the NCPEAM.
  b) The committee shall be composed of six (6) members, including a chairman, plus the president-elect, ex-officio.
  c) Committee members shall be appointed by the president with attention to geographical distribution.
  d) The committee chairman shall be appointed by the president upon recommendation of the president-elect (January).
  e) Committee members shall be appointed for a period of three (3) years and made in such manner that the services of no more than two (2) members are terminated in any one year.
  f) Resignations from the committee shall be presented to the president who shall appoint a successor to complete the unexpired term.

3) Conduct of Business:
  a) The committee shall identify and recommend the time and site of the Annual Meeting and the convention manager two years in advance of its scheduled date.
  b) The committee may conduct much of its work by correspondence.
  c) The chairman shall solicit suggestions for dates and location from committee members and subsequently determine the dates and location by consensus, providing that the time and dates selected are in accord with policy established by the association and with due consideration to housing and eating accommodations, travel, and the availability of local leadership.
  d) The policy established by the association provides for a geographical rotation plan for site and a two-year alternation plan for time. The geographical rotation plan calls for the following sequence: North Central, Northwest, South Central, Northeast, North Central, Southwest, South Central, Southeast. The two-year alternation plan calls for two consecutive December meetings followed by two consecutive January meetings.
  e) Based on the committee's consensus, the chairman shall prepare a report to the president at the annual meeting in the form of a recommendation to the association for time and site of the projected meeting.

4) Amendment:

This operating code may be amended by a majority vote of the committee subject to the approval of the Executive Council.

POLICIES COMMITTEE

The business of the Policies Committee of the NCPEAM was conducted by correspondence as permitted by its operating code.

The members of the Committee were polled to determine if they had recommendations to make concerning additions, deletions or revisions of the existing statement of policies in the **NCPEAM Proceedings.** No recommendations for change were made.

At the last convention of the NCPEAM (Portland) action was taken on eleven recommendations submitted by the Policies Committee. Several of the recommendations were approved, two were amended and then passed, one was referred to another committee, and three were not adopted. After careful consideration of the three recommendations which were not adopted last year it was decided to make no further recommendations concerning them at this time.

The Policies Committee has no recommendations for action at this time regarding changes in NCPEAM policies.

Respectfully submitted,
Jack S. Schendel
Chairman

PUBLIC RELATIONS COMMITTEE

Purpose:
1) Give publicity to NCPEAM members who have written articles and have published new books.
2) To list members who are on sabbatical leaves.

Activities:
1) Article was placed in the NCPEAM Newsletter requesting members to notify the Public Relations Chairman of any articles or new books that they have published.
2) Three lists were then compiled under the following categories:-
   a) Presentations made by NCPEAM members.
   b) NCPEAM members on sabbaticals.
   c) Articles/publications and periodicals by members of the NCPEAM.
3) The above lists were sent September 23, 1971 to Mr. C. E. Mueller for possible publication in the NCPEAM Newsletter.

Respectfully Submitted,
Thomas Watt,
Chairman

RESEARCH COMMITTEE

Activities
1) The "Laboratories and Research Equipment in Physical Education Departments" project was completed. Data were gathered, organized, and prepared for release. The report has been sent to Pat Mueller for distribution to all NCPEAM members and other interested parties.
2) The "Research Specialists in Physical Education" project, initiated in 1970 and culminating in distributed material, was not undertaken again this year. Criteria need to be established and other problems resolved at a meeting of the Research Committee during these Meetings.
3) An Operating Code was developed for the Committee.
4) New directions for the Committee were discussed through written communications, and it was decided to wait until the Committee could meet face-to-face at the annual Meetings of NCPEAM to explore possibilities further.

Respectfully submitted,
Robert N. Singer
Chairman

TIME AND SITE COMMITTEE

It is our recommendation that Kansas City, Missouri be selected as the site for the 1973 Convention, and that the dates December 27-29 be considered.

Respectfully submitted,
Dominick Taddonio
Chairman

President's Committees

FISCAL RESOURCES COMMITTEE

This committee was charged by President Richardson to recommend wherein resources may be increased and to suggest a vehicle to implement each suggested resource.

The chairman of the committee attempted to get the ball rolling by suggesting nine possible methods of obtaining revenue with three being repeated from the previous year committee study.

Committee members were most cooperative in their response. Multiple opinions were expressed to substantiate each member's position. There were no proposals which received unanimity for, or against. Some qualified answers were given in accordance with how such a proposal might be administered.

The proposals were made as means of raising funds for a central N.C.P.E.A.M. Foundation Fund. This central fund would increase each year because only the interest could be used for the association's yearly expenses. There seems to be a positive leaning on the committee towards this idea. The chairman and committee responses were as follows:

1) Increase in membership fees with the increase directed to the central foundation fund. EVALUATION—RESPONSES HIGHLY FAVORABLE.

2) Registration fees at convention. EVALUATION—RESPONSE NEUTRAL.

3) Production and sale of some unique, functional and representative item of the association. EVALUATION—RESPONSE SLIGHTLY POSITIVE.

4) Establishing local part-time student job placement centers at each college with percentage returns, if necessary. EVALUATION—RESPONSE, NEGATIVE ON LOCAL BASIS WITH SOME FAVORING A CENTRAL NATIONAL PLACEMENT OFFICE.

5) Sale of National College Physical Education Foundation Bonds with appropriate percentage returns, if necessary. EVALUATION—RESPONSE, NEUTRAL, MEMBERS EITHER STRONG FOR OR AGAINST. SHOULD BE PURSUED FURTHER BY KNOWLEDGEABLE BOND PERSONNEL.

6) Sponsoring benefit sport exhibitions or demonstrations with proceeds going to Foundation Funds. This function could be organized and administered by college major clubs. EVALUATION—NEUTRAL. OPPOSITION ON BASIS OF AMOUNT OF ADMINISTRATIVE WORK NECESSARY.

7) National Foundation Sports Equipment Purchase Center. EVALUATION—RESPONSE NEGATIVE.

8) Establish N.C.P.E.A.M. Who's Who Hall of Fame with appropriate awards given—medals, plaques, and certificates in accordance with registration contri-

butions—such as: BRONZE, $100.00; SILVER, $500.00; GOLD, $1,000.00; EVALUATION—RESPONSE POSITIVE. VIEWS VARIED AS TO APPROACH AND THE AMOUNT. THE IDEA NEEDS FURTHER STUDY.

9) Wills, memorials, and other philanthropy. EVALUATION—RESPONSE POSITIVE. IMPLEMENTATION REQUIRES LEGAL AID WHICH MAY BE ECONOMIC BLOCK.

One suggestion by a committee member seems to have merit, and that is past presidents of N.C.P.E.A.M. should serve as a Foundations' Committee to solicit funds from outside sources for N.C.P.E.A.M.

The chairman thoroughly enjoyed the association of every committee member and feels the summary is as accurate as a biased person can be!

Respectfully submitted,
Jesse C. MacLeay
Chairman

JUNIOR COLLEGE COMMITTEE

Purpose: To study the role of junior colleges in NCPEAM.

Activities:

1) A simple questionnaire was constructed that was designed to obtain the opinions of junior college personnel relative to their perception of their role in NCPEAM.
2) Fifty copies of the questionnaire accompanied by a letter of explanation were sent to junior college personnel throughout the United States.
3) At the date of the writing of this report, 30 of the 50 questionnaires (60%) were returned.
4) There were eight questions presented to the respondents on this instrument.
   a) Questions 1-5 were concerned with information about and one's affiliation to NCPEAM, and its programs (these questions required only an affirmative or negative answer).
   b) Question 6 was concerned with the means to improve membership for junior colleges in NCPEAM.
   c) Question 7 was concerned with the means to improve present NCPEAM programs.
   d) The last point requested any additional comments.
5) The findings from the questionnaires are indicated as follows:
   a) Question 1: 57% of the respondents indicated that they are familiar with the National College Physical Education Association for Men, whereas, 43% were not familiar with this organization.
   b) Question 2: 30% of the respondents indicated that they are presently a member of NCPEAM, whereas 70% were not members of this organization.
   c) Question 3: 13% of the respondents indicated that they believed that junior college personnel received adequate representation in offices and programs in NCPEAM, whereas 33% believed that this group of people were not adequately represented in offices and programs of NCPEAM. 54% did not respond or were undecided on this question.
   d) Question 4: 7% of the respondents indicated that they believed that the functions of junior colleges is understood by people in our field; whereas, 80% believed that the functions of junior colleges were not understood by people in our field. 13% did not respond or were undecided.
   e) Question 5: 47% of the respondents indicated that they would be willing to serve on committees and share in the planning, organization and implementation of programs in NCPEAM, whereas, 23% did not wish to serve. 30% did not respond or were undecided on this question.
   f) Questions 6-8: Questions 6 and 7 were subjective in nature and were concerned with ways that junior colleges can improve their membership

in NCPEAM, and how the present NCPEAM programs can be improved. Question 8 requested any additional comments. After analyzing the various responses to these questions, the following comments indicate a sampling of the remarks received from the respondents in concise form: Suggestions for improving membership of junior colleges in NCPEAM included:

(1) informing members of junior colleges of the purposes and functions of NCPEAM
(2) have some programs geared to the interests of junior colleges
(3) have state and regional meetings for a full-fledged membership drive
(4) have more news about junior colleges in the **Newsletter.**

Suggestions for improving NCPEAM programs included

(1) getting more people in junior colleges involved
(2) giving the representatives of junior colleges an equal opportunity in all areas of planning and programming
(3) planning an integrated approach of program content utilizing both junior and senior college personnel.

Action Items: The committee recommends the following:

1) That the various means of publicity be utilized to inform junior college personnel of NCPEAM—its organization, objectives, functions, and membership information.
2) That some designated member(s) of NCPEAM attend national and/or state meetings where junior colleges are represented, and reflect the results of this report, and inform the participants at these meetings of the opportunities for participation in our organization. For example, it is suggested that contacts through the National Junior College Athletic Association would be helpful.
3) That the President-elect appoint "good" junior college personnel on committees.
4) That a Junior College Section be formulated, and at least one program be geared to the interests of junior college personnel.
5) That meetings of NCPEAM not be held during vacation periods.

Respectfully submitted,
Millard J. Fisher
Chairman

MINORITY MEMBERSHIP COMMITTEE

In our Newsletter from the National Athletic Steering Committee which goes to all Black Colleges and Universities, we conducted a questionnaire asking for members who would join, who needed more information, and finally, who would attend if at another date, and in the general location of the NCAA meeting site. We received this information, and recommended as an action item that the present dates be changed.

We further passed out questionnaires at the Black Caucus at the AAHPER Meeting in Detroit. It upheld our thinking as reflected in paragraph one, and led to the letter I wrote you.

We will discuss this as an agenda item at our Steering Committee Meeting in Hollywood at the NCAA Meeting, and will report at the New Orleans Meeting if needed.

Recommendation: The committee should be retained. With the NCPEAM in the East and the NCAA in the Midwest next year, a special effort will be needed for minority members.

Respectfully submitted,
Charles Henry
Chairman

SUMMER EXCHANGE COMMITTEE

Purpose: "To promote the summer exchange of NCPEAM faculty members."
Activities:

1) Correspondence was carried on between committee members and with other interested NCPEAM members regarding ways in which our charge might be accomplished.
2) A basic information questionnaire was developed and disseminated to the Association membership in an attempt to determine the interest of college departments in participating in such a program. Returns to date indicate **strong** interest.
3) All of the plans which have been suggested require a central clearing office to bring together those individuals who want a summer exchange job with those departments which are willing and able to participate in a summer exchange program. To date, the committee has been unable to come up with a way to solve this problem.
4) It is recommended that this President's committee be continued. Some initial progress has been made, and the membership at large is at least aware of the project. Another group may well be able to pick up the concept from where we are now and move ahead in 1972.

Respectfully submitted,
Kenneth D. Miller
Chairman

STRUCTURE COMMITTEE

Introduction

The Structure Committee was appointed by President Deane Richardson at the close of the 1970 meeting. It was to continue the work undertaken last year by a similar committee appointed by Past-President Chalmer Hixson. The charge given the Committee was to thoroughly examine and evaluate the present structure of NCPEAM, both from the point of view of business and of program, and to suggest changes if they seemed in order.

The Committee, minus two members but with President Deane Richardson and President-Elect Dave Bischoff sitting with it, had a lengthy meeting in Detroit during the AAHPER Convention. A number of important decisions were reached and suggestions for change agreed upon by those present. These were then incorporated into a proposal by the Chairman of the Committee and submitted to the Executive Council of the NCPEAM at its meeting in Detroit. However, because of a shortage of time which made it impossible to thoroughly study the proposal, the Council voted to receive the Committee's Report but asked the Committee to prepare a more detailed report, in which the proposals for change were more fully explained, and to distribute it to the membership, inviting reaction. This it now does.

The Committee will consider all statements from the members and is prepared to modify its proposals if there are better suggestions made or if a large percentage of the members appear to regard the proposed changes as undesirable. Thus, it is most important that every member reviews this report carefully and corresponds with the Committee if he has questions, suggestions for improvement, or is supportive of or opposed to the Committee's proposals for change. The Committee, after reviewing all correspondence, will prepare a final report to be presented to the Executive Council and then, if accepted by that body, to the Membership for action at the next meeting of the Association in New Orleans January 10-12, 1972.

Background

The present Committee began its work with an examination of the role of NCPEAM as a professional organization. Such questions as the following were asked: What was the original purpose of NCPEAM? Why has it existed, what with all of the other professional groups? In what ways is it unique from other organizations? Who is it trying to serve? How can it best serve its members and the profession now and in the immediate future? From the ensuing discussion, the following points seemed to emerge:

1) NCPEAM should be serving men who are working in higher education, or who wish to work at this level, whose primary interest is the broad field of Physical Education.
2) While NCPEAM was originally established by persons holding administrative positions and in many respects it has continued to serve them, the Association should now be striving for a membership representative of the many interests within the profession, especially those special academic areas in the broad field of Physical Education.
3) NCPEAM has a responsibility to critically examine the profession and assume a leadership role in promoting necessary change.
4) The program of NCPEAM should be more than "how to do it" sessions; rather they should be concerned with much more substantial issues. They should explore new concepts and attempt to integrate the knowledge gained through research, critical thinking, and experience so it can be applied to the problems of the profession. Thus research should permeate all of the meetings rather than being isolated.
5) NCPEAM should plan for three types of scheduled meetings at its annual convention:
   a) **General Sessions**—These would be few in number but would deal with the larger issues of the profession which affect all members. They would have no formal competition on the program.
   b) **Division Meetings**—These would make up the bulk of the annual convention and would deal with the general areas of interest of the members. Each of these meetings would be competing with only one other meeting in the program and it would be a meeting of a different division.
   c) **Special Interest Meetings**—These are for those members who have quite narrowly defined subjects which they wish to discuss in a rather unstructured meeting. Several of these special interest groups will be meeting at the same time, but they will not be competing with divisional meetings.

   (Note: In addition to these three formally-scheduled types of meetings, there is a need for informal, unscheduled meetings as well. These have always been an important part of NCPEAM annual conventions and must be encouraged. Thus, time must be set aside for them when no formally-scheduled meetings are occurring.)

From this critical evaluation, several problems seemed to be identified. They are as follows:

1) A need to provide for greater flexibility in handling present and future major interests of the members.
2) A recognition that persons charged with planning programs had insufficient time, and sometimes knowledge of the operation, to provide the desired type of programs.
3) A feeling that while the Executive Council should provide adequate representation of the various interests of the members and also provide worthwhile experience to officers about to assume leadership roles, it should be kept small enough to operate efficiently.

Proposals for Change

We move that the constitution and bylaws of NCPEAM be amended to effect the following changes in the Association's structure effective following the Pittsburgh meeting:

1) That the present six sections (Basic Instruction, Teacher Education, Intramural Athletics, Intercollegiate Athletics, History of Sport, and Research) be replaced with the following three divisions:
   a) **Sport and Leisure Programs**—This division would include the present sections of Basic Instruction, Intramural Athletics, and Intercollegiate Athletics. In addition, it could encompass such interests as Extramural Athletics (Sports Clubs) and Campus Physical Recreation Programs.
   b) **Professional Preparation**—This division would be concerned with those interests of the present Teacher Education section, but it would include both undergraduate and graduate programs in the broad field of physical education, i.e. it could include programs other than those which are traditionally teacher-oriented.
   c) **Body of Knowledge**—This division would include the present History of Sport Section but in addition, it would be open to Comparative Physical Education, Sociology of Sport, Motor Learning, Physiology of Exercise, Sport Psychology, Administrative Theory, etc.
2) That each division be led by three officers elected by the members attending the division meetings. These officers (see titles and their major responsibilities below) would all be voting members of the Executive Council and would move to the office in the order listed below:
   a) **Second Vice Chairman**—His first year in office would be used primarily for learning and preparing for his second-year duties.
   b) **First Vice Chairman**—He would be responsible for arranging the several programs at the annual convention, but could have the assistance of the other two officers and of Committees appointed by the Chairman. It would be his duty to see that the programs are properly balanced according to the interests of the members.
   c) **Chairman**—He would be in over-all charge of the division and, working with the other two elected officers of the division, responsible for its operation.
3) That the present offices of President-elect and Past-President of the Association be eliminated and two new offices created. These officers (see titles and their major responsibilities below) would all be voting members of the Executive Council and would move to the office in the order listed below:
   a) **Second Vice President**—The duty of this office would be primarily that of learning and preparing for the duties of the next two offices. However, he would be in charge of arranging the Special Interest Sections of the annual meetings.
   b) **First Vice President**—The duty of this officer would be arranging the program for the annual convention. While his main responsibility would be arranging for the General Sessions, he would work also with the First Vice Chairmen.
   c) **President**—The duties of this officer would be unchanged since he still would have the over-all responsibility for the operation of the Association.
4) That the office of Member-At-Large be eliminated and that this position on the Executive Council be given to the President of the Western College Mens' Physical Education Society, or his designated representative. Thus, the Executive Council would be composed of the following members:
   a) President
   b) First Vice President
   c) Second Vice President
   d) Secretary-Treasurer
   e) The three (3) Chairmen of the divisions
   f) The three (3) First Vice Chairmen of the divisions
   g) The three (3) Second Vice Chairmen of the divisions

A Sample Convention Program

In order to illustrate how the new structure might work, the following sample program was prepared:

DAY	TIME	MEETINGS	
1)	9:00-10:30	Sport and Leisure Prog. Div.	Prof. Prep. Div.
	11:00-12:30	General Session	Annual Business Meeting
	2:00- 3:30	Body of Knowledge Div.	Prof. Prep. Div.
	4:00- 5:30	General Session	
	8:00-10:30	Special Interest Meetings	
2)	9:00-10:30	Sport and Leisure Prog. Div.	Body of Know. Div.
	11:00-12:30	Sport and Leisure Prog. Div.	Prof. Prep. Div
	1:00- 2:30	Convention Luncheon	
	3:00- 5:30	Special Interest Meetings	
3)	8:30-10:00	Prof. Prep. Div.	Body of Know. Div.
	10:30-12:00	Sport and Leisure Prog. Div.	Body of Know. Div.

Respectfully Submitted,
Wayne Brumbach
Chairman

QUEST ADVISORY BOARD

Activities

1) The board met on April 4, 1971 in Detroit, Michigan. **Quest** business manager, Joan Nessler, presented her report which showed a balance on hand of $11,364.76 as of March 18, 1971. A motion was passed that after **Quest** XVI foreign annual subscriptions, excluding Canada, should be $10.00 and $5.00 for single issues.
2) Effective July 1, 1971, the following personnel changes took effect:
   Editor—Lawrence Locke
   Associate Editor—Betty Spears
   Business Manager—Frances Bleick
   NCPEAM Appointee—Dale Hanson
   NAPECW Appointee—Maryann Waltz
3) A number of suggestions regarding the publishing of **Quest** have been received and are being considered. However, no significant changes are proposed at the present time.

Respectuully submitted,
Harold VanderZwaag
Chairman

Joint Committees

NAPECW-NCPEAM CONFERENCES AND PROJECTS COMMITTEE

This joint presidential committee was formed in January, 1971, by the respective presidents of NAPECW (Catherine Allen) and NCPEAM (Chalmer Hixson).

The first meeting was on April 3, 1971, Detroit, Michigan. Those present were: D. Deatherage, A. Jewett, C. Allen, P. Scott, and L. Alley, B. Pelton, and D. Bischoff.

Results:

The Detroit meeting, together with suggestions made via correspondence, resulted in **consensus** on the following points:

1) Current joint projects have been highly successful and should be continued. (Publication of **Quest**, AAHPER Convention Booth, Archives at the University of Illinois)
2) The committee endorsed a proposal for a meeting of members of its two parent associations in December, 1973. The problem of finding mutually acceptable meeting dates and sites is acknowledged to be difficult. Thus, it is suggested that NAPECW be invited to plan jointly for a one- or two-day meeting before or after the annual NCPEAM meeting. This pattern has been quite successful for WSPECW and WCMPES. It has the advantage for the women of permitting us to offer this additional conference opportunity to interested members without interfering with our scheduled biennial workshops or annual spring meetings. (A 1969 NCPEAM committee survey reported 230 members voting for a joint professional meeting with NAPECW, with only 72 members opposed.)
3) It would seem desirable to invite our male professional colleagues to participate actively in district meetings and possibly to schedule specific conference sessions for joint discussion on selected topics of mutual interest. This is a matter in which individual districts maintain their autonomy. It is already being done in the only district in which the NCPEAM has an organized affiliate.
4) It was generally agreed that both organizations need to make concerted efforts for greater involvement of their younger members and that joint activities could be a good channel for moving in this direction. The committee is not prepared to offer specific suggestions toward this goal, but urges further attention to this joint concern.

Further exploration of the following potential joint projects or mutual concerns is clearly desirable:

1) The committee agreed that more communication through our respective periodicals is desirable. We suggest that our respective editors consider the possibility of a joint newsletter at least once during the calendar year, and that attempts be made to include information of common interest in the publications of both associations.
2) The committee believes an exchange of membership mailing lists could be useful.
3) If either association determines to affiliate with a national group such as AAHPER, the possibilities of a joint office for both has advantages to the two associations.
4) The whole broad question of a possible merger or of reciprocal membership clearly needs continuing study. This committee did not address this question directly, however, since another committee was given this specific charge. (NAPECW has not undertaken this as yet.)

Other ideas considered which led to **no consensus** or definite suggestions included the following:

1) Sponsorship of lecturers;
2) Informal local clinics, buzz groups, speak-outs, sensitivity training, etc.;
3) Group travel tours;
4) Inter-institutional projects such as data banks, summer workshops, etc.;
5) Fellowship award.

Because it seems inappropriate for a joint committee to make recommendations to the respective NCPEAM and NAPECW Boards of Directors, the coordinators of this committee offer the following **recommendations:**

1) Initiate plans for a joint meeting with NCPEAM in December, 1972-January, 1973.

2) Continue cooperative efforts with NCPEAM through reappointment of a joint committee.

Respectfully submitted,
Barry C. Pelton
Chairman

NCPEAM, NCAA, AAHPER PHYSICAL EDUCATION AND ATHLETICS COMMITTEE

Purpose: To coordinate efforts of the NCAA, NCPEAM, and AAHPER
Activities:

1) During the past year, the primary function of the Joint Committee on Physical Education and Athletics was the development of a position statement regarding the **professional status of coaches in colleges and universities**. A subcommittee composed of Warren Giese, Lynn Doherty, and Ed Malan developed a statement which was submitted to the entire Joint Committee. The committee approved the statement in principle, but it may be subject to revision after it has been reviewed by Mr. Tonto Coleman, Southeast Conference Commissioner, AAUP, American Association for Higher Education, AAHPER, NAIA, NACDA, National Junior College Athletic Association, and the NCPEAM. It was further suggested that the position statement be submitted to the various regional accrediting bodies for their comments.
2) It is recommended that the Executive Committee of the NCPEAM review the attached statement on the **professional status of collegiate coaches** for their approval or suggested points of revision.
3) Since the next meeting of the Joint Committee will take place on 10 January 1972 during the NCPEAM meeting in New Orleans, there may be additional items which could be brought to the Executive Council before the close of the 1972 conference.

Respectfully submitted,
Carl W. Selin
Chairman

STATEMENT ON THE PROFESSIONAL STATUS OF COLLEGIATE COACHES

"Coaches who are employed in intercollegiate athletic programs generally have responsibilities which may be classified as follows:

1) Entirely within the intercollegiate athletic program.
2) Combination coaching of intercollegiate athletics and teaching general skill courses within the required physical education program.
3) Combination coaching of intercollegiate athletics and teaching in the professional preparation program for physical educators and athletic coaches.

Suggestions concerning hiring and retention qualifications of personnel with coaching responsibilities:

1) Responsibilities entirely within the intercollegiate athletic program—Qualifications consistent with policies of individual schools.
2) Combination coaching of intercollegiate athletics and teaching general skill courses within the required physical education program.
   a) Potential for reasonable teaching competence as evidenced by a requirement of a major or minor in the field of professional preparation.
   b) Demonstrated teaching ability in the academic area in which one is employed to teach.

c) Joint approval of the departments involved concerning contracts and assignments as evidenced by time allotment and salary percentages.
d) Evaluation of performance is the responsibility of the administrative head of the unit in which work is performed.
e) Unsatisfactory performance as determined by the administrative head of either unit may result in termination of employment in that respective unit.

3) Coaching of intercollegiate athletics and teaching in the professional preparation program for physical educators and athletic coaches.
a) Should be employed with faculty status.
b) Potential for reasonable teaching competence as evidenced by a graduate major in the area in which he is employed to teach.
c) Joint approval of departments involved concerning contracts and assignments as evidenced by time allotment and salary percentages.
d) Evaluation of performance is the responsibility of the administrative head of the unit in which the work is performed.
e) Unsatisfactory performance as determined by the administrative head of either unit may result in termination of employment in that respective unit.

CONSTITUTION
NATIONAL COLLEGE PHYSICAL EDUCATION ASSOCIATION FOR MEN

ARTICLE I—NAME

Section 1—The organization shall be known as the NATIONAL COLLEGE PHYSICAL EDUCATION ASSOCIATION FOR MEN.

ARTICLE II—OBJECTIVES

Section 1—Objectives of the ASSOCIATION relate to the advancement of physical education in institutions of higher learning, including: the basic instructional program; intercollegiate athletics; intramural athletics; research; teacher education; and such other activities as may be assigned to a given college department. More specifically, the objectives are:

a. To improve the contributions of physical education, and where appropriate, the related fields of health education and recreation, to higher education.
b. To identify and define major issues and problems confronting the profession, particularly those of higher education, and resolve them to the best possible ends.
c. To gather, analyze, interpret, and organize the research needed to resolve the major issues and problems facing the profession of physical education, especially those which are concerned with higher education.
d. To develop interdisciplinary relationships with kindred fields of knowledge for the light they may shed on the nature and values of physical education (e.g., anthropology, psychology, sociology, sports medicine, etc.).
e. To improve public relations through increasing public understanding of the nature and purposes of physical education in American and world life.

ARTICLE III—MEMBERSHIP

Section 1—The ASSOCIATION shall consist of members as hereinafter provided.

ARTICLE IV—GOVERNMENT

Section 1—The government of the ASSOCIATION shall be vested in an Executive Council, officers, committees, and members as hereinafter provided.

ARTICLE V—WESTERN DIVISION

Section 1—The Western College Men's Physical Education Society, consisting of college physical educators in the thirteen western states, shall be known as the Western Division of the National College Physical Education Association for Men (Alaska, Arizona, California, Colorado, Hawaii, Idaho, Montana, New Mexico, Nevada, Oregon, Utah, Washington, and Wyoming).

ARTICLE VI—SECTIONS

Section 1—The ASSOCIATION may establish sections within its organizational structure as hereinafter provided.

ARTICLE VII—MEETINGS

Section 1—The ASSOCIATION shall conduct annual and special meetings as hereinafter provided.

Section 2—Robert's Rules of Order shall govern the conduct of all business of the association not covered in this Constitution and By-Laws.

ARTICLE VIII—AMENDMENTS

Section 1—This Constitution may be amended at any regular or special meeting of the ASSOCIATION, or by mail vote. A favorable vote of three-fourths (¾) of the members present at a regular or special business meeting, or a majority of the current membership by mail vote, shall be required for amendment; no mail vote shall be valid beyond thirty (30) days after official notification. In either case (regular or special meeting) a quorum must take action as hereinafter provided.

BY-LAWS

ARTICLE I—MEMBERSHIP AND DUES

Section 1—There shall be two (2) types of membership: active members and emeritus life members. All members shall have equal voting privileges.

Section 2—Active members are men actively engaged in teaching or administering one or more components of college physical education, men with teaching experience pursuing graduate study, or men engaged or interested in allied fields.

Section 3—Active membership dues shall be ten dollars ($10.00) per fiscal year—as provided in Article XI, Section 5—payable to the Secretary-Treasurer upon official notification by him. Members delinquent in their annual dues for a period of one (1) year shall be dropped from the rolls; re-instatement consists of paying the annual current dues.

Section 4—Emeritus membership may be conferred upon members by a two-thirds (2/3) affirmative vote at a regular business meeting. An individual must be a current member at retirement and have a minimum membership of 15 of the last 20 years. Emeritus members shall enjoy all the rights and privileges of active members but will not pay dues.

ARTICLE II—EXECUTIVE COUNCIL

Section 1—The Executive Council shall consist of the President, President-Elect, the immediate Past President, the Secretary-Treasurer, one (1) Member-at-Large, and all elected Section Chairmen as provided in Articles III, IV, and VI below. All members of the Executive Council shall have equal voting powers. Any person holding office in the ASSOCIATION must be an active member.

Section 2—The Executive Council shall manage the general affairs of the ASSOCIATION, except as hereinafter specified. These general affairs shall consist of: (a) fulfilling directives given to it by the membership at the annual business meeting, or by mail vote; (b) presenting matters of policy to the membership at the annual business meeting, or by mail vote, for adoption or ratification; (c) acting for the ASSOCIATION between annual meetings; (d) maintaining an active professional program through the year; and (e) making appointments to fill vacated offices not otherwise provided for.

ARTICLE III—OFFICERS AND DUTIES

Section 1—Officers of the ASSOCIATION shall consist of the President, President-Elect, and Secretary-Treasurer. Any person holding office in the ASSOCIATION must be an active member.

Section 2—The President shall preside at all ASSOCIATION and Executive Council meetings, and appoint all committees as prescribed in Article IX. He shall call and make appropriate arrangements for the place and conduct of all meetings of the ASSOCIATION and Executive Council as provided in Article VII. He shall supervise the program planning for all ASSOCIATION meetings as provided in Section 3 below. He shall provide for an annual audit of the Secretary-Treasurer's accounts as provided in Article IX. He shall be authorized to sign checks in the absence of the Secretary-Treasurer.

Section 3—The President-Elect shall, during the absence of the President, perform all duties of the President, and, if the office of the President becomes vacant, the President-Elect shall succeed to the presidency for the unexpired term. The President-Elect shall succeed to the presidency at the normal expiration of the President's term of office as provided in Article IV. The President-Elect shall plan the ASSOCIATION program for its regular annual meeting, under the supervision of the President as stipulated in Section 2 above.

Section 4—The Secretary-Treasurer shall perform all duties usually incumbent upon these offices, edit and cause to be published the Proceedings of the annual meeting and other publications, in accordance with Article X, collect dues, pay ASSOCIATION bills on approval by the President, assume general charge of all monies belonging to the ASSOCIATION, render a financial account to members at the annual business meeting, and conduct mail voting procedures as authorized by the President. The Secretary-Treasurer shall be bonded by the ASSOCIATION to the sum of ten thousand dollars ($10,000) per annum. He shall receive a sum annually for clerical and other services, if funds permit, as determined by the Executive Council.

ARTICLE IV—ELECTION OF OFFICERS AND THE COUNCIL MEMBER-AT-LARGE

Section 1—A nominating committee consisting of the three immediate past presidents shall be instructed by the President to prepare a slate of at least two names for the office of President-Elect and Council Member-at-Large, the retiring President to serve as Chairman. If the Nominating Committee desires, it may submit only the name of the incumbent Secretary-Treasurer for re-election. Additional nominations may be made from the floor at the annual business meeting. A majority vote, with a quorum present, shall be required for election; if no candidate receives a majority on the first ballot, the two candidates receiving the highest number of votes shall then be voted upon. Elections shall be by secret ballot.

Section 2—Officers and the Council Members-at-Large shall be elected for one (1) year, extending from the close of the annual meeting at which they are elected to the close of the next annual meeting at which their successors are elected. If, for some unusual reason a quorum be not present at the election of officers—as provided in Article VIII, Section 1—the incumbent officers and Council Member-at-Large shall remain in their respective positions for the ensuing year.

Section 3—The President, President-Elect, and Council Member-at-Large shall not immediately succeed themselves in the same office, except as specified in Section 2 above. The Secretary-Treasurer may be re-elected from year to year at the pleasure of the membership.

Section 4—Vacancies, except as provided in Article III, Section 3, shall be filled by the Executive Council pending the regular election.

ARTICLE V—WESTERN DIVISION

Section 1—The Western Division will be represented on the Executive Council only as its members might be elected to it (Executive Council) in the regular course of events as National College Physical Education Association members.

Section 2—The Western Division shall have one session at the National College Physical Education Association meeting whenever it is held in any of the thirteen western states, in place of their regular annual meeting, and the President of the Western Division shall be responsible to the President-Elect of the National College Physical Education Association for this program just as any section chairman is responsible to him for his program.

Section 3—The purposes of the Western Division shall be consistent with the purposes of the National College Physical Education Association as stipulated in Article II of its constitution.

ARTICLE VI—SECTIONS

Section 1—The ASSOCIATION may establish sections within its organizational structure to promote the activities of professional interest groups. Examples are: basic instructional programs; intramural athletics; teacher education; intercollegiate athletics, research; history of sport; and others.

Section 2—The membership may authorize the establishment of any given section at a regular business meeting by a majority vote upon written application by twenty-five (25) current members stating the purpose and function of the proposed section and upon recommendation by the Executive Council—provided a quorum takes action as prescribed in Article VIII.

Section 3—Each section shall elect its own officers consisting of a Chairman, Chairman-Elect, and Secretary at the annual section meeting. A Nominating Committee consisting of three (3) section members shall be appointed by the Chairman at least three months preceding the annual section meeting at which the section officers will be elected. The Nominating Committee shall prepare a slate of two (2) names for each office. Additional nominations may be made from the floor. A majority vote shall be required for election. If there are more than two (2) candidates and no candidate receives a majority on the first ballot, the two candidates receiving the highest number of votes shall then be voted upon. Elections shall be by secret ballot. Any person holding office in the ASSOCIATION must be an active member.

Section 4—Section officers shall be elected for one year, extending from the close of the meeting at which they were elected to the close of the next annual meeting at which their successors are elected. Section officers shall not immediately succeed themselves in the same office.

Section 5—The Chairman shall preside at all section meetings which shall be open to the entire ASSOCIATION membership. He shall supervise the program planning for all section meetings held during the annual meetings of the ASSOCIATION. He shall also be responsible for pursuing professional activities throughout the year which are pertinent to the interests of the section. He shall be responsible for the conduct of section activities in a manner consistent with the intent and stated provision of the ASSOCIATION's Constitution and By-Laws. By virtue of his office as Section Chairman, he shall serve as a member of the Executive Council of the ASSOCIATION.

Section 6—The Chairman-Elect, during the absence of the Chairman, shall perform all the duties of the Chairman, and, if the office of the Chairman becomes vacant, the Chairman-Elect shall succeed to the chairmanship for the unexpired term. The Chairman-Elect shall succeed to the Chairmanship at the normal expiration of the Chairman's term of office. The Chairman-Elect shall plan the section program for its regular annual meetings under the supervision of the Chairman as stipulated in Section 5 above.

Section 7—The Secretary shall keep minutes of all business transactions at section meetings. These minutes shall be passed along to each succeeding Secretary, in order that the continuity of section activity may be maintained. He shall be responsible for forwarding all papers and reports given at section meetings to the Secretary-Treasurer of the ASSOCIATION for consideration for publication in the PROCEEDINGS.

Section 8—The ASSOCIATION may abolish a given section at a regular business meeting by a two-thirds (2/3) majority vote provided a quorum takes action as prescribed in Article VIII.

ARTICLE VII—MEETINGS

Section 1—The ASSOCIATION and its Executive Council shall each hold at least one annual meeting at the time and place designated by the Executive Council.

Section 2—Special meetings of the ASSOCIATION and/or the Executive Council may be called by the President upon authorization by the Executive Council.

ARTICLE VIII—QUORUM

Section 1—A quorum to conduct ASSOCIATION business at its regular annual meeting shall be thirty percent (30%) of the convention registered members at the times of the business meetings. A mail vote quorum shall consist of fifteen percent (15%) of the current membership.

No mail vote shall be valid after thirty (30) days from the date upon which the question was mailed by the Secretary-Treasurer to the members for action.

Section 2—A quorum of the Executive Council shall consist of at least three-fifths (3/5) of the members, including the President, or the President-Elect duly authorized by the President to act for him.

ARTICLE IX—COMMITTEES

Section 1—Committees shall be designated as President's Committees, Continuing Committees, Standing Committees, and Joint Committees. Any person holding office in the ASSOCIATION must be an active member.

Section 2—President's Committees shall be appointed by the President and expire with his term of office.

Section 3—Continuing Committees shall be authorized by the membership at regular business meetings, or by mail vote. Continuing Committee members shall be appointed by the President and approved by the Executive Council. A Continuing Committee is one whose assignment extends beyond the term of office for which the President is elected, but which deals with a specific project or problem of terminal nature. Such committees shall continue until discharged by official action of the membership at a regular business meeting, or by mail vote.

Section 4—Standing Committees shall be authorized by the membership at a regular business meeting, or by mail vote. Standing Committee members shall be appointed by the President and approved by the Executive Council. A Standing Committee is one assigned a given task which, of necessity, extends indefinitely. Such committees shall follow the policy of rotating membership and number of members as determined by the Executive Council, with no person appointed for a period to exceed three (3) consecutive years. Standing Committees presently authorized by the ASSOCIATION are: Constitution; Finance; Foreign Relations; Historical Records; Membership; Necrology; Resolution; Nominations; Convention Program; Policies; Public Relations; Operating Codes; Research; Legislative; and time and site.

Section 5—Joint Committees shall be authorized by the Executive Council and appointed by the President. A Joint Committee is one that deals with a specific project or problem in cooperative relationships with one or more associations or organizations.

Section 6—Each Continuing Committee and Standing Committee shall prepare an operating code which is to be approved by the Executive Council.

Section 7—All committees shall report at each annual meeting as determined by the Executive Council.

ARTICLE X—PUBLICATIONS

Section 1—The official publication of the ASSOCIATION is the PROCEEDINGS, which contains a record of activities carried on throughout the year, culminating in the annual meeting.

Section 2—The Secretary-Treasurer shall be responsible for editing and publishing the PROCEEDINGS as soon as possible after each annual meeting, and for the distribution of free copies to all members in good standing.

Section 3—The Secretary-Treasurer shall arrange for the publication and distribution of such other materials as the Executive Council may direct.

ARTICLE XI—FINANCE

Section 1—Monies obtained by the ASSOCIATION shall be allocated to the: (a) operating budget; or (b) permanent fund.

Section 2—The operating budget shall contain those funds deemed necessary by the Executive Council to carry on the work of the ASSOCIATION throughout the fiscal year, including the annual meeting.

Section 3—The permanent fund represents those monies that accumulate from time to time in excess of the operating budget. The Secretary-Treasurer shall invest these sums upon recommendation by the Finance Committee (as defined in the following Section) and as approved by the Executive Council. The Executive Council may authorize the withdrawal of funds from the Reserve Account for use as the Executive Council sees fit.

Section 4—A Standing Committee, known as the Finance Committee and conducting its affairs under the direction of the Executive Council, shall: (a) prepare annually the operating budget; and (b) make recommendations to the Executive Council on the investment of surplus funds.

Section 5—The fiscal year shall extend from September 1st through August 31st.

Section 6—In the event of dissolution of the National College Physical Education Association for Men, all unencumbered funds will be forwarded to the American Association for Health, Physical Education, and Recreation, Washington, D.C.

NCPEAM POLICIES

All curent policies formally adopted by the Association to govern its affairs are included in this section. For the purposes of the Association, a policy may be defined as an agreed course of action to be followed in conducting the affairs of the organization.

In many cases, the provisions of the Constitution and By-Laws of the Association are not definitive. These provisions are implemented into action through the medium of policies and procedures. These policies and procedures tend to give continuity and uniformity to Association activities over a considerable period of time, irrespective of the changes that occur continuously among its officers and members. It is also through the medium of policies and procedures that the Association gears itself to the fluctuations of the times.

Achieving Association Purposes

1. Association Objectives

   The Association shall:

   a) Use every medium of influence to improve present programs of physical education in the schools at all levels to the end that the boys and girls and all citizens of the nation have adequate opportunity to develop desirable attitudes, knowledge, and skills in physical education.
   b) Support all efforts aimed at establishing desirable athletic practices at each educational level to the end that physical education can make its maximum contribution to the welfare of the participant.
   c) Engage in activities looking toward the promotion of research designed to improve the quality and scope of physical education programs through

(a) research activities of the Association committees; (b) Association endorsed studies by selected graduate students in colleges and universities; (c) collaboration with other organizations conducting meetings and in the publications of the Association; and (d) serving as a clearing house for research in college physical education.

d) Use its influence to support the development of specific professional preparation programs for coaches and the establishment of certification standards for coaches.

e) Encourage the integration of men's and women's programs of physical education whenever possible.

f) Conduct a biennial poll of all active members to obtain ideas for new policies or revisions.

2) Coordinating with Other Agencies

The Association shall:

a) Cooperate with other education agencies to improve professional preparation programs in health, physical education, and recreation.

b) Cooperate with other educational agencies in promoting the objectives of health education, physical education, and recreation.

c) Call upon all school and college administrations to secure properly qualified professional personnel to teach, coach, and administer physical education and athletic programs.

d) Cooperate with other educational organizations in sponsoring and/or having official representation at conferences in the fields of health education, physical education, and recreation.

e) Coordinate whenever possible the work of committees and projects with similar committees from other professional organizations.

f) Cooperate with other professional societies in the formulation of education standards and in recommending them to colleges and universities for the development and control of programs of health education, physical education, and recreation.

3) Basic Instruction Program

The Association shall:

a) Support the position that the practice of substituting band or ROTC for the physical education program must be vigorously opposed.

b) Encourage colleges and universities throughout the country to abolish the practice of granting physical education credit for military service.

c) Encourage colleges and universities to include in the basic instruction program a depth of emphasis on the body of scientific knowledge, on the relationship of exercise to the biological development of the human organism, and on movement as a medium in the educational process for total development of the individual.

d) Encourage all colleges and universities to offer physical education instruction as a part of their academic curricula.

Administering Association Affairs

1) Membership

The Association shall:

a) Seek to retain new members to better acquaint them with the traditions and purposes of the organization, and seek ways for them to participate actively in the affairs of the Association.

b) Endeavor to maintain liaison with emeritus members by utilizing their experience and zeal through participating in assignments to Association affairs and programs.

c) The membership not previously paid will be billed for dues, one month after the Annual Meeting has concluded.

2) Annual Meeting

The Association shall:

a) Have as the primary purpose of the regular meetings of the Association to provide the largest number of members with opportunities to discuss the major areas of the college program of physical education. These meetings shall be planned so as to include wide participation among members.

b) Select the dates and location of the annual meeting so as to encourage maximal attendance by the members of the Association. To equalize, over a period of years, the distance traveled to meetings of the Association residing in the various sections of the country, the principle of periodic rotation among cities shall be given consideration in the selection of the site for the annual convention.

c) Consider site locations for the annual convention that place no restriction on Association members with reference to housing, attendance at meetings, or other factors tending to divide the membership.

d) Limit the length of the official convention to three days. This does not prevent any group from meeting before the convention, but group meetings shall not be included in the official program, nor shall any papers or summaries of pre-convention meetings be a part of the PROCEEDINGS.

e) Require papers submitted for presentation to be limited to the basic essentials of the topic. In no case shall papers exceed 2000 words, including committee reports. The editor shall have authority to make deletions or changes necessary to conform to his policy.

f) Require that only abstracts of prepared papers be presented at annual meetings, thus allowing more time for discussion.

g) Take no official action to assist non-Association special interest groups in scheduling informal meetings.

3) Committees

The Association shall:

a) Require each committee to submit its operating code to the Operating Code Committee, who will in turn request that the Constitution Committee check each code to see that it is in keeping with the constitution.

b) Rotate committee membership in order to involve as many members as possible.

c) Strive to seek committee representatives from institutions in all areas of the nation.

d) Provide a fund for use by the President in executing his duties. Normally, all of his expenses shall be borne by his institution; therefore, this fund is to serve only as an emergency fund.

4) Publications

The Association shall:

a) Disseminate deliberations of the official meetings through the published PROCEEDINGS and through reports covering such special projects as may be authorized by the Association.

b) Carefully edit all publications of the Association to make certain that they represent a high quality of scholarship and follow approved methods of conducting and reporting educational research.

c) Not accept advertising or other extraneous material for publication in the literature of the Association.

d) Collaborate with the National Association for Physical Education of College Women in the publication of QUEST.

e) Display the following statement on the inside back cover of the PROCEEDINGS:

Non-profit organizations may secure reprints of PROCEEDINGS articles by paying cost-plus handling charges. Additionally, said organizations must secure the author's permission and then may request the privilege of reprinting and/or translating articles, giving appropriate credit to the author and the PROCEEDINGS.

However, profit agencies must pay the "going rate" for these privileges after receiving appropriate permission, with the revenue accruing to the National College Physical Education Association for Men. Profit making agencies shall be interpreted to include an author who received royalties from a publication.

5) Projects

The Association shall:

a) Endorse only those studies which benefit the profession and the Association.

b) Place in the hands of the appropriate committee requests by students seeking endorsement of the Association for doctoral studies. Procedures to implement this policy will be included in the operating code of the committee.

c) Sponsor and conduct projects as approved by the Association. Such projects should involve little or no expense. They must be of a nature that their business can be readily transacted by mail, and they should have some beginning and ending.

d) Sponsor and operate a placement service for its members at the annual meeting.

6) Historical Records

The Association shall:

a) House National College Physical Education Association for Men historical documents in a designated college library.

b) Annually give two copies of the PROCEEDINGS to the library designated by the Association to house its historical materials.

c) Preserve its historical records by duplicating the original copies. Duplicate copies can then be distributed upon request from the library designated by the Association to house its documents.

7) Delimitation of Function

The Association shall:

a) Not serve as an accrediting agency to evaluate specific programs of physical education in individual institutions of higher education.

b) Not participate in activities concerning the relationship of a particular college to its employees in such matters as employment, promotion, tenure, dismissal, or academic freedom.

8) Maintenance of the Policy Statements

The Association shall:

a) Assign the Secretary-Treasurer to be responsible for maintenance of the policy book. He shall make its contents, or parts thereof, available to officers and members whenever the need arises.

b) Direct the Secretary-Treasurer to include new policies in the policy book or to revise or delete those previously established as approved at a regularly scheduled business meeting at the annual convention. Action on policies may be taken at any regular business meeting of the Association without the necessity of prior notice.

c) The Association's policies shall be printed in the PROCEEDINGS annually.

Emeritus Members 1972

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ALEXANDER, LOUIS A., M.A.
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ASHBROOK, WILLARD P., Ph.D.
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BUTLER, LYSLE K., Ph.D.
(1930, 1970)
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Legend:

*Attended 1972 Convention
(1) Past President
(2) Past Secretary-Treasurer

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*ANDERSON, BRUCE D., Ph.D. (1965)
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Legend:

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(1) Past President
(2) Past Secretary-Treasurer

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BAUTZ, CONRAD A., Ed.D. (1966)
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*BEARDEN, FRANK W., Ed.D. (1953)
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BECHER, BRUCE, M.A. (1968)
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Lorain, Ohio

BECK, EUGENE E., Ph.D. (1958)
Kearney State College
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BERGER, RICHARD A., Ph.D. (1964)
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BERGER, WILL, M.S. (1971)
Arnold College
Bridgeport, Connecticut

BERGSRUD, O.B., P.E.D. (1971)
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BERGSTROM, ROBERT W., Ed.D. (1971)
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*BILLINGS, ED. S., P.E.D. (1968)
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BONNETTE, ALLEN R., Ed.D. (1964)
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BORING, WARREN J., H.S.D. (1954)
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CAMPNEY, HARRY K., Ph.D. (1968)
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